

MANUFACTURERS RECORD

A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,
Mining, Contracting, Engineering, Building, and General
Business Interests of the South and Southwest

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No. 14

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Wherein the South Suffers in Iron and Steel

Mighty movements involving vast iron and steel developments in the East, and possibly in the West also, are under way. Deals and rumors of deals are heard everywhere.

New forces are coming to the front in operations of far-reaching importance, and some men of national prominence, after years of practical retirement, are returning to their first love—the steel industry—and are preparing to become big factors in the world's steel industry.

Combinations and consolidations are being projected, which, if they materialize, may almost be comparable in importance to the formation of the Steel Corporation.

All these things show an awakening of life and a stirring of dry bones that presage the broadening and big growth of the iron and steel industry of America.

But the South lags behind in this movement of iron and steel.

If the Administration had accepted the unanimous court decision in favor of the Steel Corporation and abandoned its suit, it is safe to say that millions would ere this have been put into the promised big developments at Birmingham, which were checked by this suit, inaugurated by Republicans and continued by Democrats.

The South is the loser.

Cannot the Administration find a way to end the suit and thus open the South to big iron and steel developments?

BALTIMORE, OCTOBER 7, 1915



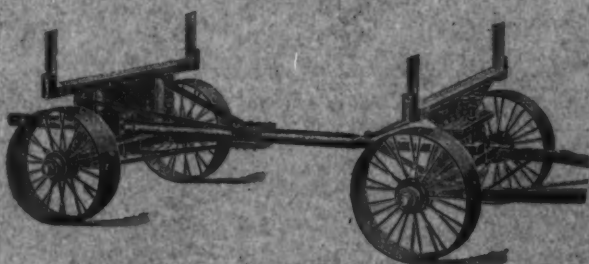
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MANUFACTURERS RECORD

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HOW THE UNDERWOOD-SIMMONS BILL HURT COTTON AND WOOL.

THE National Association of Cotton Manufacturers at its meeting on September 11 adopted a paper presenting some of the reasons why a change in the tariff law on cotton and woolen goods is essential.

In this paper the figures are given showing that for the nine months ending with July, 1914, before the war began, the importations of cotton cloths amounted to \$10,370,161, as compared with \$6,176,454 for the corresponding period of the preceding year, a gain of nearly 70 per cent.

The imports of the manufactures of wool for the six months ending June 30 of 1914, under the Underwood-Simmons law, amounted to \$24,173,980, as compared with \$7,227,199 for the corresponding six months' period of 1913 under the Payne-Aldrich law, a gain of over 234 per cent., or an actual increase for the nine months in cotton of \$4,200,000 and for the six months in wool of over \$16,900,000, or a total of over \$21,000,000.

No wonder our cotton and woolen interests felt the effect of such a competition, but this is of trifling importance as compared with what we will have at the close of the war unless there is a radical change made in the tariff. It is time for Washington authorities to act in order to give confidence to the industrial interests of the country.

In closing the report the National Association of Cotton Manufacturers said:

It is evident from these figures that the reduced duties of the Underwood-Simmons law brought about an immediate and notable increase in the importations of cotton cloths and of the manufactures of wool.

In some instances the imports of cotton cloths increased 100 per cent., and for the total period of nine months there is an increase of 68 per cent. In the case of manufactures of wool the increase is even greater, the imports for six months of 1914 being nearly four times as large as the imports during the same period of 1912.

Our cotton and woolen mills are capable of supplying at reasonable prices the entire needs of the American market. Any such increase in the importation of staple textiles, as occurred before the outbreak of the war, must result in the curtailment of American production and in distress to the wage-earners of our textile mills.

When the war closes the American market will be eagerly sought by the European nations as the most available and promising means of restoring their shattered industries and recovering their commercial prestige. The world's gold is pouring into our coffers, and Europe will seek to replenish its depleted supplies by sending to us enormous quantities of manufactured goods.

Competition for the American market will result in the fiercest commercial warfare that the world has known, and a wise solicitude for our national welfare should prompt such a revision of our tariff laws as will place the nation in a state of preparedness against an invasion of foreign goods.

If our motto is to be "America First," then we respectfully urge your earnest attention to the danger which will threaten American manufacturing industries unless tariff duties, adjusted to the new conditions and to the growing demands for increased revenue, are put into effect in place of duties based upon entirely different conditions and circumstances.

AMERICA: "THE LIGHT OF THE WORLD" OUR DESTINY.

WHEN opportunity knocks at the door of an individual or of a nation, the individual or the nation will advance or retrograde according to the way in which the knock is answered.

Opportunity merely spells responsibility. Responsibility accepted means the broadening of the individual soul or life.

Opportunity rejected or neglected means a shriveling of the life or the soul of the individual. As a nation is but an aggregate of individuals, so it expands or shrinks as it avails itself of opportunity and responsibility, or as it refuses to rise to the occasion and meet the responsibility.

Never, in all the annals of human history, did opportunity knock so loudly at the door of any nation on earth as it is knocking, knocking at the door of this country.

In William Holman Hunt's great painting, "The Light of the World," you see a closed cottage door with no knob on the outside. Before the door stands the Christ, the light of the world, knocking for admission. The artist has been criticised for painting a door without a knob on the outside, but his thought was evidently to typify in this door the human heart, which cannot be entered except by the opening of the door from the inside, and he who would heed the knock must rise and open it.

This superb painting of Divinity standing before the closed human heart and knocking for admission may not be improperly or irreverently used to typify the world standing before the door of America knocking for admission into the inner circles of all of our financial, industrial and agricultural activities.

To the civilization and the commerce of the world America should be "The Light of the World," the uplifter of mankind, the exemplar of all that makes for human advancement. This is our opportunity and our responsibility, and as a nation we shall expand or shrivel in soul according to the way we meet the situation.

The awful carnage of Europe, the wreck and ruin, before which all human words utterly fail, are turning the thoughts of mankind to this Heaven-favored land and making business men in all the nations of the earth look to this country to take up the responsibility of meeting the world's needs in commerce and industry. Even though we would not seek to build our prosperity on the death of the business of the warring nations with other countries, duty to civilization demands that as far as may be possible we shall use the present opportunity and the responsibility to heed the world's call, to answer the world's knock, as it asks that we become "The Light of the World" in things ethical and material and as it seeks to open up means of communication with us in order to secure the supplies which heretofore have been furnished by Europe.

Scarcely a day passes that the MANUFACTURERS RECORD is not in receipt of letters from various parts of the world, some from Russia, some from France, some from Roumania, some from Turkey, some from South America, some from the Orient, expressing the thought that this country must prepare to take care of the world's needs which have heretofore been supplied by Europe. Many of these letters tell of the disorganization of all business connections with European countries, of the need of establishing new lines of commerce and industry, of the pressing necessity to find new sources of supply for immediate wants, looking to a continuation of enlarging trade conditions when world conditions improve.

We are face to face with the most momentous period in the last nineteen hundred years. We are living in a time "when to live is sublime," for, however much we may deplore the sorrow and the suffering of the hundreds of millions in Europe, we can

but stand in awe as we look into the amazing situation into which this war has suddenly thrust us.

We are out into the world for world affairs, and whether we would or would not we cannot shirk our responsibility without losing our opportunity. We cannot fail to meet this responsibility without a shriveling of the soul of the nation as of the individual. We must broaden our thought, and instead of thinking in terms of States we must think in terms of nations; instead of trading with our neighbor only, we must trade with the world; instead of producing goods for those immediately around us, we must produce the things that the world requires.

When we look at the situation in this light we are still more impressed with this marvelous hour and its meaning in the light of the fact that the Almighty has more richly endowed this country for material progress than any other area on earth.

We must bear in mind that coal, which has been the foundation of the world's industrial advance, is found here in such vast quantity as to make almost insignificant the supplies of all of Europe.

We must remember that iron ore, the foundation of the iron and steel industry, on which has been built the world's metallurgical advancement, is found in this country and in the countries nearby in vaster quantity and more easily susceptible of being utilized than anywhere else known to man.

We must at the same time remember that nearly two-thirds of all the cotton produced on earth is raised within the South; and this industry, surpassed only in its output by iron and steel, is largely founded on and dominated by the cotton produced in the South.

We already have more than 40 per cent. of the world's iron and steel output.

With only about 6 per cent. of the world's population, we are producing of many of these great fundamental elements of human progress from 40 to 50 per cent., and in some cases even more.

With only about 6 per cent. of the land area of the earth, we have a combination of natural advantages that stagger the imagination and make us pause as we stop to think what the Almighty had in mind when He planned this amazing material situation on which to base and build our civilization.

We may well ask ourselves what relation have these boundless natural resources and our strategic geographical situation between Europe and Asia; our vast coast line and our territory, stretching from the arctic regions to the semi-tropic, to the plans of the Infinite. And then we must remember that in this peculiarly favored country we have been bringing together the people of every nation under the sun, slowly but surely assimilating them into one people, and thus proving the possibility of the homogeneity of races and nations. As we view these facts we must of necessity recognize that we have been called upon to hold some mighty position in shaping the destiny of mankind and the destiny of the material and ethical development of the world.

AVAUNT POLITICAL PROPHETS!

THE political prophets who prophesied doleful prophecies of the South's death and doom and bankruptcy and of the downward trend of cotton are in hard lines. If they had not had so many dismal failures to the credit of their prophecies in times past, they would doubtless be passing some sleepless nights bemoaning their fate, but many, many experiences of a somewhat similar character have doubtless made callous places over all their sensibilities. And yet we wonder if they will not keep on prophesying, hoping that some day by mere luck the wheel of fortune will turn their way and for once their prophecies come true. They can fool many people many times, but they cannot fool all the people all the time.

DAWNING OF AN AGE OF THE MIRACULOUS.

TALKING by wireless to a man nearly 5000 miles away seemed to the average reader like a tale from the Arabian Nights, and when the newspapers last week chronicled the feat that had been performed by operators in Arlington and Pearl Harbor, 4000 miles apart, there was a gasp of wonder as to what new miracle would be announced next.

To Nikola Tesla, however, this is merely the arrival at a way station along a road which he has completely mapped out.

"This wonder in wireless telephony, of which the papers are full, is no wonder at all, but a perfectly simple result of the application of my wireless system," says Mr. Tesla in a letter to the MANUFACTURERS RECORD. "Both the plants in Washington and Honolulu are equipped with my apparatus, but the engineers are, of course, entitled to credit for the particular devices of controlling the transmitted and recording the received impulses. These, however, are only accessories of the system, which can be varied in many ways by inventive and experienced experts. I have, myself, contrived more than two dozen of such devices before settling on what I considered the best. Please note that all this was done prior to 1902.

"I am sending you under enclosure an article descriptive of my discovery made in July, 1899, which furnished absolute demonstration that the human voice, by means of the system I have devised, could be readily carried around the globe. In fact, I had performed at that time feats described in my patents which involved the overcoming of greater difficulties than those confronting the experts in these tests just reported."

The article Tesla sent was an extended description of discoveries made by him in 1899, as a result of which he found that "not only was it practicable to send telegraphic messages to any distance without wires, as I recognized long ago, but also to impress upon the entire globe the faint modulations of the human voice, far more still, to transmit power, in unlimited amounts to any terrestrial distance and almost without any loss."

Concluding, he declared: "When the great truth accidentally revealed and experimentally confirmed is fully recognized, that this planet, with all its appalling immensity, is to electric currents virtually no more than a small metal ball, and that by this fact many possibilities, each baffling imagination and of incalculable consequence, are rendered absolutely sure of accomplishment; when the first plant is inaugurated and it is shown that a telegraphic message, almost as secret and non-interferable as a thought, can be transmitted to any terrestrial distance; the sound of the human voice, with all its intonations and inflections, faithfully and instantly reproduced at any other point of the globe; the energy of a waterfall made available for supplying light, heat or motive power anywhere—on sea, or land, or high in the air—humanity will be like an antheap stirred up with a stick. See the excitement coming!"

In an interview in the New York Times of the 3d Tesla foretells a time when thousands of persons will be talking at once between stations, without regard to distance, these wireless conversations entirely safe from eavesdroppers—"as secret as a thought," he says. "Some day there will be, say, six great wireless telephone stations in a 'world system' connecting all the inhabitants of this earth to one another not only by voice, but by sight."

The human intellect finds it well-nigh impossible to comprehend the unseen, to visualize the unknown. Thus it comes about that much greater excitement is caused by the bare announcement of a conversation between Washington and Honolulu than was aroused by the description of greater wonders Mr. Tesla foresaw nearly twenty years ago.

That the perfection of the wireless transmission of speech and power was then at hand was the declaration made by Tesla in an article he wrote for the MANUFACTURERS RECORD and which was printed in this newspaper a few weeks ago.

"The use of a new receiving device which will be shortly described, and the sensitiveness of which can be increased almost without limit," said he, "will enable telephoning through aerial lines or cables however long by reducing the necessary work-

ing current to an infinitesimal value. This invention will dispense with the necessity of resorting to expensive constructions, which, however, are of circumscribed usefulness. It will also enormously extend the wireless transmission of intelligence in all its departments.

"The next art to be inaugurated is that of picture transmission by ordinary telegraphic methods and existing apparatus. This idea of telegraphing or telephoning pictures is old, but practical difficulties have hampered commercial realizations. A number of improvements of great promise have been made, and there is every reason to expect that success will soon be achieved.

"Another valuable novelty will be a typewriter electrically operated by the human voice. This advance will fill a long-felt want, as it will do away with the operator and save a great deal of labor and time in offices.

"A new and extremely simple electric tachometer is being prepared for the market, and it is expected that it will prove useful in power plants and central stations, on boats, locomotives and automobiles.

"Many municipal improvements based on the use of electricity are about to be introduced. We have soon to have everywhere smoke annihilators, dust absorbers, ozonizers, sterilizers of water, air, food and clothing, and accident preventers on streets, elevated roads and in subways. It will become next to impossible to contract disease germs or get hurt in the city, and country folk will go to town to rest and get well."

That there has been great destruction of German submarines through the use of electrical devices which tell of the proximity of the boats is reported from abroad. This is merely one of the electrical inventions foretold by Tesla in his marvelous résumé of electrical progress made for the MANUFACTURERS RECORD.

"Battleships and submarines," said he, "will be provided with electric and magnetic feelers so delicate that the approach of any body under water or in darkness will be detected. Torpedoes and floating mines are almost in sight which will direct themselves automatically and without fail get in fatal contact with the object to be destroyed. The art of telautomatics, or wireless control of automatic machines at a distance, will play a very important part in future wars and, possibly, in the next phases of the present one. Such contrivances which act as if endowed with intelligence will be used in innumerable ways for attack as well as defense. They may take the shape of aeroplanes, balloons, automobiles, surface or under-water boats, or any other form according to the requirement in each special case, and will be of greater range and destructiveness than the implements now employed. I believe that the telautomatic aerial torpedo will make the large siege gun, on which so much dependence is placed at present, obsolete."

Among the most amazing predictions made by Mr. Tesla in his article in the MANUFACTURERS RECORD was the one that, within a short time, it will be possible for mankind to completely control the precipitation of the moisture of the atmosphere. He foresees the time when it will be possible to draw unlimited quantities of water from the oceans, giving moisture to the crops as required, and supplying any amount of energy to water-powers that may be desired, thus completely transforming the globe by irrigation, intensive farming and the development of unlimited hydro-electric power.

"We are progressing at an amazing pace," says Mr. Tesla, "but the truth is that even in the fields most successfully exploited the ground has only been broken. What has been so far done by electricity is nothing as compared with what the future has in store."

THE SOUTH'S SUMMER CLIMATE.

EFFORTS were made this summer by some of the steamship lines operating between the North and Florida to induce summer tourist travel to Florida. This was a wise move, for 99 people out of 100—yes, 999 out 1000 living outside of Florida have an impression that Florida is an intensely hot place in summer. To most of these people you might talk until doom's day, you might present weather statistics without end, but you could not drive out of their head the impression that a visit

to Florida in summertime is like taking your life in your hand in some risky adventure. Nothing short of a trip to Florida in the summer season and a visit to some of the ocean and gulf resorts there would ever convince a very large proportion of the people outside of the State as to Florida's summer climate as compared with the climate of other sections.

A few weeks ago a number of Baltimoreans went to the Pacific Coast. They spent a few days at Salt Lake City, and while there the thermometer gave them a steady temperature, so they reported, of 108 degrees. From Salt Lake City they went to Southern California and found an intensely hot country. And yet upon their return one business man in the party expressed his enthusiasm for Southern California because it was possible to live there in summertime, and the winters were good, expressing at the same time the suggestion that in this respect it was ahead of Florida because it was not possible to live in Florida in summer.

The gentleman who made this statement is a well-informed, intelligent prosperous business man, and he simply voiced the views of a very large proportion of the people of the country. When he was told of how Florida people from all parts of the Union will unanimously testify to the attractiveness of Florida's summer climate, he was greatly amazed. He had thought that because Florida has a good winter climate it had a burning, intense heat through the summer.

California railroads never for a moment think of letting up in their efforts to attract people to California during the summer. They are always vigorously urging people to visit California on summer excursions as well as in winter time, and yet Southern California has a heat unknown to Florida, and no man in Florida, however long he has lived there, has probably ever seen the thermometer reach 108 degrees, as it did in Salt Lake City a few weeks ago.

Many people also believe Florida is a land of mosquitoes, but we venture to say that there were far fewer mosquitoes to be found in Florida during the present summer than in Baltimore, or New York, or in Massachusetts. Indeed, on portions of the coast of Massachusetts this year mosquitoes were so intolerably bad that guests could get but little rest. And in New York, not only in the suburbs, but in the city, mosquitoes were thicker than the writer has ever found them in Florida.

A very large proportion of the South has climatic advantages and freedom from insect pests which make it infinitely superior to the rest of the country.

The South has never yet fully waked up to its superior advantages over other sections. It sees its own disadvantages, whether they be mosquitoes or insects or a warm day, and forgets that mosquitoes and other insects and warm days are often more intolerable elsewhere than at home.

The move to turn summer tourist travel into Florida is, therefore, a good one. Visitors to that State during the summer time, if proper hotel accommodations on the seacoast are provided, would get a new understanding of the South's climatic advantages.

"100,000 BUSHELS OF CORN FOR SALE."

WE have 100,000 bushels of white corn, raised on our plantation, on which attractive prices can be made for delivery in Mississippi, Louisiana, Alabama, Georgia and Florida. We can sell in the husk, husked in the ear, or shelled in bulk or sacked.

LAMB-FISH LUMBER CO.,
Charleston, Miss.

For the first time in the history of the MANUFACTURERS RECORD there appears in its columns an advertisement of Southern corn for sale, as indicated in the above, which is a portion of an advertisement in the MANUFACTURERS RECORD of the Lamb-Fish Lumber Co.

Last week we published an interesting story about the remarkable success of this company in growing corn on its cut-over Yazoo Delta land, and now there comes this announcement offering 100,000 bushels for sale. When throughout the South similar advertisements shall be found in all the local papers of the South inserted by farmers or by local grain merchants, we shall see the beginning of the full development of this section.

THE ANGLO-FRENCH COMMISSION SHOULD BE INVITED SOUTH.

THE MANUFACTURERS RECORD would like to suggest to the members of the Anglo-French Finance Commission that while they are in this country they make a trip, even though a brief one, through the central South, certainly as far down as New Orleans.

In this way they would come in direct touch with the life of the South; they would come to know the cotton situation from the standpoint of the growers and the commission men and the bankers better than they can understand it simply from the viewpoint of New York.

It would seem to be in order for the leaders in Southern development in the South, as well as in New York, to extend to the Anglo-French Finance Commission an invitation so hearty and so united that even if the members may be pressed for time they could not fail to accept if an acceptance be possible without changing all of their plans as to the time of their return to Europe.

Will the South move in the matter?

"THE HAND WRITING ON THE WALL."

ONE of the most interesting signs of the times is the broadening of the thought of the South, and a willingness to express it, that this section cannot afford to be hide-bound in its views on economic problems merely because of the theories of the past. An editorial in the Carolina Fruit and Truckers' Journal of Wilmington is an illustration of this growing spirit of independence in thinking and speaking out. The editor of that publication calls attention to the fact that there ought to be abounding prosperity throughout the land, whereas there is not, and in expressing his change of thought from free trade to protection says:

A Southern man, native and to the manor born, we speak as we feel and feel as we speak, and appeal to all others to come over to our way of thinking for the good of all and the welfare of our common country.

This editorial is an illustration of the change of thought that is taking place throughout the South.

If the Democrats are wise, they will see "the hand-writing on the wall" and use the situation in Europe as a justification for changing their position and making a tariff bill that would produce the revenue needed for the Government's expenses. Such a revenue bill would give protection needed by our industrial interests. In announcing his new viewpoint the editor of the Carolina Fruit and Truckers' Journal says:

Since agriculture has been declared the basis of all wealth and prosperity, in the light of such conditions as are reflected in the above official figures, this country should be smiling with prosperity and development from one end of the land to the other. If not, then the doctrine of agriculture being the source of all wealth is no more nor less than a "midsummer night's dream," about which Tennyson dwells with such poetic grace. But, instead of that universal prosperity and development which should be legitimately ours, it would be difficult to find a mill or factory in active operations today anywhere in the United States other than those engaged in the manufacture of munitions of war or supplies of one kind or another for the belligerent nations of Europe.

As a matter of fact, the biggest half, and we might truthfully say three-fourths, of the United States is feeling today the weight and burden of a serious financial depression, with business far below normal and conditions in practically every legitimate line below normal everywhere. And yet but for the fact that many of our industrial interests are working on foreign business that no one could safely estimate on as a basis for their guidance in times of peace we would have universal paralysis of our mercantile, manufacturing and industrial enterprises all over the land. Do you doubt this statement or contend that we have overdrawn the picture? If so, consult the records of every commercial agency in the United States as to business failures and trade conditions, the reports of output in every line of trade and commerce, save agriculture, and you will find that every statement herein made places us easily within the bounds of truth and safety. If it were not so, we would not have said so.

With all these facts before us, then, it would be idle and foolhardiness to deny the fact that there is not something wrong, and seriously wrong. We say there is some-

thing wrong, and we believe nine out of every ten men who think for themselves will agree with us that there is something wrong, and that something is our tariff laws and fiscal policy. Four-fifths of the progress and development of our industrial interests, trade and commerce at home and abroad for more than half a century has been built up and fostered under the operations of a high protective tariff, and it is a matter of record beyond any man's ability to question or doubt that under every high-tariff administration we have had in this country for fifty years or more we have prospered and developed, expanded and gone forward as no other country has ever prospered and gone forward before or since.

On the other hand, the record will bear us out in the assertion that under every low-tariff administration we have had in this country for more than half a century has been notorious for seasons of depression, low prices for our agricultural and manufactured products, stringency in financial matters, idle and unemployed labor, and restrictions as well as paralysis to a greater or less extent in all lines of trade and commerce. Now, with these facts before us, and the records will bear out every statement herein made, we think it high time the American people should begin to make up their minds for a change of front and a return to high-tariff policies with a view to restoring prosperity to the great masses of people, the development of our commerce and trade, as well as our industrial and financial resources.

We are keenly alive to the fact that many of our readers in the South have not been fed on this bill of fare in the past, but, regardless of our political affiliations and policies in the past, we must resolve to meet the changing conditions of today, master the situation by acquitting ourselves like men, and embracing the opportunities with which a benign Providence has blessed us so bounteously. The opportunity is knocking at our doors and the exigencies of the occasion are so great and appealing that even "he who runs may read, and though the wayfaring man be a fool, he need not err therein." Facts are facts and figures are figures which will not down at any man's bidding. The handwriting on the wall is plain and unmistakable, and unless our people are content to be "hewers of wood and drawers of water" for other parts of this country all their lives, we must look the situation squarely in the face and resolve upon the adoption of those policies that vouchsafe the greatest good to the greatest number. To do this we must return to the high-tariff policy of McKinley and Dingley that has been the nation's bulwark of safety in the past. A Southern man, native and to the manor born, we speak as we feel and feel as we speak, and appeal to all others to come over to our way of thinking for the good of all and the welfare of our common country.

SUGAR—ONE OF THE WORLD'S ECONOMIC PROBLEMS.

BY way of "horrible example" to such members of Congress as are not yet impressed with the importance of preserving and fostering the sugar industry of the United States, the present experience of England may give them serious thought.

Having for many years given no encouragement to the beet-sugar industry in England, and with England's colonies thrown upon their own resources, without aid or preference in any way from their Home Government, England has suddenly found herself bereft of adequate sugar supplies. As pointed out by Mr. George Dureau of the Le Journal des Fabricants de Sucre, England found it necessary to commandeer the available sugar supply in the British colonies. These colonies, however, have been in a state of great depression for thirty years, or ever since the increased sugar production of the world forced sugar to such a low level of values that the cane-sugar industry as such seemed to be in a fair way for final extinguishment because of the rapid increase of beet-sugar production in Continental Europe, and because Continental Europe included within its limits Russia, whose beet-sugar production was constantly climbing upward and whose ultimate resources in the way of sugar production were vast almost beyond comprehension.

Great Britain found ample supplies of sugars nearby at prices less than the cane-sugar producers would willingly accept, and she chose to buy the German, Austrian and Russian sugars, come what disaster there might to her famous West Indian sugar colonies and to her remoter colonies in the far East. This diversion of the English demand for sugar to the European continental sources of sugar production threatened the extinguishment of the cane-sugar industry, as European science and capital threatened the life of its languid tropic competitor.

In applying the lesson of England's predicament to conditions in the United States the Louisiana Sugar Planter makes some exceedingly pertinent comments. After reviewing world conditions in the sugar industry, the Louisiana Planter says:

England has deliberately refused to so legislate as to promote the production of beet sugar in Great Britain,

notwithstanding the astounding successes of the industry on the mainland of Europe. The Congress of the United States has refused to give further aid to the development of the sugar industry of the United States, a country with a hundred million of people, the largest consumers of sugars in the world, and with a great laboring element among the most advanced in the civilized world. While other nations, and more particularly Continental Europe, have guarded their sugar industry during the last century with the extreme care, endeavoring first of all to secure complete home supplies, and secondly to be able to export sugars to the rest of the world, our legislators in Washington have finally determined to cast the sugar industry from them as unworthy of further legislative support. We can scarcely believe that this economic suicide will actually occur, but it is unquestionably contemplated, and will automatically occur on the first of May, 1916, unless some change in existing legislation is effected by our Congress in Washington this winter.

England has had to search the world for sugar and to commandeer the supplies held by its colonists, generally at prices entirely unsatisfactory to the colonists. It lay in the power of England to do this, and in a time of war it would lie in the power of our own Government to do similar things. Our Government could commandeer the wheat crop and the corn crop and the munition factories, but unless existing conditions are changed so far as they relate to the sugar industry, our own Government would be in as troublous a condition for sugar supplies for our own people as Great Britain now finds itself. The situation is serious beyond any financial problem with which we are brought into relation.

It would seem that if no other consideration was involved, the reasons above given are entirely sufficient for encouragement being given to the growing of sugar-cane in Louisiana. When, on top of these important reasons, there is added the fact that the revenues of the Government are insufficient for running expenses, it would seem a simple act of business sanity for the Government to hold fast to the \$50,000,000 per annum secured through the tariff on sugar.

A GOOD EXAMPLE FOR OTHER SOUTHERN CITIES.

ONE of the handicaps to the widest diversification of grain growing in the South has been the lack of facilities for finding a ready market for wheat, corn and oats as easily as a market can be found for cotton. In most of the towns of the South it is far more difficult for farmers who raise a surplus of grain to market it to advantage than it is to market their cotton. Until this is remedied by the active work of the merchants in all towns in the South it will be difficult to bring about the largest possible growth in the raising of grain and food-stuffs.

To meet this situation the Board of Trade of Little Rock, Ark., has sent broadcast through the State a circular emphasizing the facilities possessed by that city for the handling of surplus corn, wheat, oats and hay. This action is worthy of imitation by other towns and cities throughout the South.

The circular of the Little Rock Board of Trade, attractively printed on a large handbill and scattered broadcast through the State, is as follows:

To the Farmers and Merchants of Arkansas:

Little Rock is your logical market for all surplus corn, wheat, oats and hay. Low carload rates into Little Rock apply on all shipments. Our market has ample elevator and warehouse facilities to care for all of your grain. The Little Rock grain dealers and commission men will take care of all cars consigned, and make liberal advances on all shipments.

The Little Rock Board of Trade furnishes official inspection of grades and weights on all grain, which is a guarantee that the shippers' interest receive ample protection and fair treatment. Highest market price will be paid on day when sales are effected. Remember unsound and damaged grain is worth more to you for your cattle and hogs than to damage your shipments by mixing such in. Corn must either be shelled at home or must be loaded in the ear with shuck off. We have the shelling facilities here to shell all naked ear corn.

For the names of commission men and grain dealers, and other information, address

GEO. R. BROWN,
Secretary Board of Trade, Little Rock, Ark.

In sending this special bulletin issued to the farmers of Arkansas Mr. Brown writes to the MANUFACTURERS RECORD:

You can put it down for a fact that the farmers of Arkansas this year raised the products to feed our people and their livestock as well, and that we are reaping the full benefit of the high price of cotton.

THIS YEAR'S COTTON CROP AND PRICES

ACCORDING to the estimates of the United States Department of Agriculture of the cotton crop this year, based upon conditions on September 25, the yield will amount to 10,950,000 bales. This small crop emphasizes the position the MANUFACTURERS RECORD has constantly taken in warning cotton planters not to be frightened into selling at a low price, but to recognize that cotton has an intrinsic value, and that sooner or later the world will pay a good price for this year's yield. While a large amount of cotton has been brought over from last year, some of it being in the warehouses of cotton mills, some of it in public warehouses and a very considerable amount yet in the hands of planters, it is altogether probable that the world will need all of this year's available cotton at good prices.

It is especially important, however, that the advancing prices for cotton should not lessen the South's interest in diversified farming. A higher price for cotton, if won at the expense of diversified agriculture, would be a disaster to the South. By reason of this danger it is more incumbent today than ever before upon bankers, merchants and all others having the interest of the South at heart unceasingly to preach the raising of more grain and livestock in order that the South may continue, during the coming year, the splendid progress that it made this year in the diversification of its agriculture.

According to the Department of Agriculture's estimate, based on conditions on September 25, the indicated yield per acre for the year as compared with other years, and the acreage as compared with last year's acreage, are as follows:

State.	Yield per Acre (Pounds, Lint).				Acreage Planted 1913.	
	1915. (Indicated).	1914. Final.	1913. Final.	Ten-Year Average. Final.	Acres.	Per Cent. of 1914 Planted Area.
Virginia.....	290	295	240	228	36,000	80
North Carolina.....	248	290	239	240	1,333,000	86
South Carolina.....	208	255	235	223	2,389,000	83
Georgia.....	188	239	208	195	4,684,000	85
Florida.....	112	175	150	125	202,000	90
Alabama.....	148	209	194	176	3,382,000	83
Mississippi.....	180	195	204	195	2,728,000	88
Louisiana.....	159	165	170	174	1,138,000	85
Texas.....	145	184	150	171	10,365,000	86
Arkansas.....	176	196	205	191	2,193,000	86
Tennessee.....	202	200	210	200	813,000	87
Missouri.....	288	270	286	283	107,000	72
Oklahoma.....	176	212	132	181	2,102,000	72
California.....	459	500	500	...	35,000	75
All other.....	...	...	...	...	17,000	84
United States.....	198.1	209.2	182.0	187.7	31,535,000	84.3

MARKET PLACE WHERE BUYERS AND SELLERS MEET.

ASHCRAFT COTTON MILLS.

Florence, Ala., September 28.

Editor Manufacturers Record:

We have a large Ludlow valve in our plant for which we need some repairs, and we have forgotten completely the address of these people. If you happen to have it in your files, we would very much appreciate your furnishing it to us. For this purpose we enclose stamped envelope and thank you in advance.

C. W. ASHCRAFT,
President.

This inquiry from a leading cotton-mill president for the address of the manufacturer of the Ludlow valve is an illustration of the importance of manufacturers keeping their advertisements steadily in the MANUFACTURERS RECORD. We are in constant receipt of letters of this kind asking for information about special lines of machinery, and a great many manufacturers who want such information, not being always able to find what they wish, naturally turn to other lines or other manufacturers to fill their orders.

The MANUFACTURERS RECORD is the great marketing place where buyers and sellers meet. If sellers are not represented in the market place, the buyers get what they need from others who are represented. No manufacturer or business man seeking to do business in the South or Southwest can any more afford to keep out of the market place where his goods should be displayed than could a dealer in merchandise or fruits or vegetables afford to stay away from the market place frequented by consumers.

TIMES CHANGE, AND MEN MUST CHANGE WITH THEM.

IT is exceedingly gratifying to note from many dispatches from Washington, and to hear from many sources, directly and indirectly, that the position which the MANUFACTURERS RECORD has been taking for months in favor of a revision of the tariff upward at the coming session of Congress is growing in favor. That the duty on sugar should be immediately restored was suggested by us at the beginning of the war, and every day since has emphasized the necessity for this step.

However active business conditions may be at present in certain lines of industry, due to war conditions which are world-wide in their effect, and which of necessity are throwing upon this country the world's demands for many lines of goods, no intelligent man can view the situation at the close of the war without alarm if our present tariff should continue in effect. When this fearful struggle in Europe is over there will be a commercial war in which some European countries will put forth their most vigorous efforts to save themselves from bankruptcy by selling at any price needed to catch the business for the output of their factories. America will be the "dumping" ground for the product of their factories, and prices will not cut so much of a figure as will the ability to find an immediate market and get ready cash. It is often cheaper, even in this country, to run a factory when its products are selling below the actual cost of manufacture than it is to shut down, because the "overhead" charges must be carried and labor would be disorganized and scattered if the factory were closed. It will be Eu-

rope's effort not so much to make money while it is struggling to get on its feet as it will be to sell its products at any price that can be had.

Preparedness against physical war is scarcely more important than preparedness against the war of commerce and industry which will be inaugurated when the present physical war has ended.

We would be blind to every interest of this country if we did not recognize this situation. Democrats and Republicans alike should be interested in safeguarding the country against such an influx of foreign products as will be forced upon us if existing tariff rates continue.

As the South is at present dominating Congress, it is of supreme importance to the South that the Representatives from this district should be made to understand fully the dangers which the South faces as well as the rest of the country. The iron, the lumber and other interests in this section should make their influence felt in pressing upon Congress the vital importance of prompt action.

Whatever may have been the views of legislators or of others as to protection or free trade, the war has entirely changed the situation so that he who was the rankest free-trader in the past can be absolutely justified now in being a protectionist.

The advocates of peace, who for years opposed big armies and navies, feeling that the world had reached a point where they were no longer needed, are now forced to become ardent advocates of preparedness to save our country from the possibilities of war.

If peace advocates are justified—and surely they are—in becoming advocates of preparedness through big armies and navies, certainly there is justification for free-traders of the past becoming protectionists under present conditions.

"CLEAN UP," FOR CLEANLINESS IS AKIN TO GODLINESS.

TO a greater extent than ever known before the first week in October is being observed throughout the South as "Clean-Up Week." In a number of places an elaborate and comprehensive program is being carried out and a large number of the newspapers of the South contain comments on the situation, which seem to indicate that the idea of an annual "Clean-Up Week" is taking a firm hold and is likely to spread until it becomes a practically universal and permanent movement.

Nothing could be more advantageous than the adoption by every Southern city of an annual "Clean-Up Week." Jacksonville, Fla., is setting a good example by carrying out a "Dress-Up Week." As mapped out, the whole community will devote the week to a comprehensive clean-up, brush-up, paint-up and dress-up campaign.

As defined in Jacksonville, "Dress-Up Week" means to "dress up your mind in confidence of American prosperity, dress up your person in fit clothes, dress up your home in comfort, dress up your city in industry and charity, and dress up your family in a combination of all these things."

It is proposed that by the time the week ends everything in Jacksonville will be spick and span. The displays in shop windows are even included in the campaign, so that at the end of the week everything will be in order. There will be clean streets, clean yards and lawns, tastily ornamented shop windows, and the clean city and clean streets will be thronged by well-dressed people.

In some communities Sunday of this week was celebrated in line with the suggestions of the National Community Betterment Association as "Community Betterment Day." The injunction for the observance of the day is in this form: "On this day give thought to the good things about you; say a good word for your community; go to church; shake hands with your neighbor; greet the stranger; unfurl the flag."

The whole idea of the movement in its various forms cannot be too highly commended. Cleanliness in all its forms is a builder of character, and it wins favorable consideration from friend and stranger alike. It is altogether desirable that "Clean-Up Week" become a permanent institution all over the South, and it is to be hoped that it will even extend its influence to the small town hotel, which, as pointed out in an editorial in the MANUFACTURERS RECORD of last week, is too often a just occasion of complaint and denunciation by travelers who are compelled to become its "guests," or rather "victims."

HOW THE INDUSTRIES MAY BE FOSTERED BY GOVERNMENTAL CO-OPERATION.

WHATEVER else of German "Kultur" may emerge from the crucible of the war, it seems inevitable that the commercial world will be forced to adopt the principles of scientific trade economy and governmental co-operation which are mainly responsible for the marvelous efficiency of the Germans. It is yet to be determined how much of intensive co-ordination between Government and peoples may be effected in a democracy, but if Germany, by the decrees of an inscrutable Providence, should chance to win, German methods of commercial efficiency would be automatically forced upon competitive nations instantaneously, and if Germany loses, which the rest of the world and some Germans consider inevitable, the world will still be impelled to adopt the efficient, as anywhere revealed.

These are matters which are engaging the deepest thought of publicists and economists everywhere, and in line with the widely recognized necessity for "preparedness" of every form comes a suggestion from Mr. Wm. M. McCormick, a manufacturing chemist of Baltimore, which is worthy of consideration.

In the belief that great good would result from co-operation between the manufacturers and colleges, between the United States laboratories and

other governmental departments with the manufacturers and colleges, Mr. McCormick has written a letter to the secretary of the Chamber of Commerce of the United States asking the Chamber of Commerce to give the matter consideration and, if deemed advisable, to take the initiative in the work as outlined. In this letter Mr. McCormick says:

Today there is no connecting link between our large universities, such as Yale, Harvard, Johns Hopkins, Stanford and others with the business interests of the country, nor is there a connecting link between the laboratories of the Government and these colleges or the business interests; hence the country at large does not profit from the result of their experiments and labors.

This means lost motion, lack of efficiency, unnecessary expenditure of money and a much longer time to accomplish results than if they co-operated with each other. For instance, if you want to know how to scientifically treat leather, viz., the best way to tan it, etc., you may get an expert at high salary to work on it independently for you, and there you stop. If you take the matter up with our universities, you get no help there.

The same thing applies to the making of glass, which is done in this country at the present time the same way it was 200 years ago, while Germany has improved its methods of manufacture of glass very materially, turning out material of finer quality and making it more cheaply than we can. This has come about, we understand, by the Government availing itself of the efforts of the great chemists of the large universities, manufacturers, laborers and others interested, having them collaborate and thrash out the very best and cheapest way to manufacture this product and passing the information along.

The strides which Germany has made in this co-operative movement along industrial lines have been enormous, and the possibilities in this country are great.

An instance of lost motion under present methods is shown in the canned-goods industry. The Government has a laboratory in Washington and it was getting along fairly well, but accomplishing little for the practical good of the canners. The canners got together, established their own laboratory and made and are making their own experiments. The information thus obtained is sent broadcast to all the members of their organization, and it has put the canning industry in this country on a level which it had never dreamed of occupying and that it could have occupied years ago if all the sources of information had been co-ordinated.

I believe that the Government ought to co-operate with the manufacturer and the business people just as it has with the farmer and horticulturist, for whom it spends millions of dollars every year in making experiments, obtaining information and passing it along. In place of doing this, in the drastic laws which have been enacted and the manner in which they have been executed it seems to have treated business as criminal and with animosity rather than helpful co-operation.

Our possibilities are boundless if we can but get the Government, the universities and the business people to work together.

LOOKING TO UNITED STATES TO SUPPLY FOREIGN WANTS.

ILLUSTRATIONS of the increasing interest throughout the world in the opportunity for trading with the United States are the many subscriptions which are constantly coming to the MANUFACTURERS RECORD from foreign lands from those who express a desire to keep in touch with American manufacturing interests.

Pablo Gutierrez Q of Cochabamba, Bolivia, writing in regard to a recent issue of the MANUFACTURERS RECORD which he had seen, said:

This number pleased me very much and I have given it due attention, and would like you to do me the favor of sending it for one year, with the amount for subscription, whatever it is, to be remitted as you may direct.

By the same mail came a letter from Albert Harman Company, 26 Hamilton road, Highbury, England, enclosing \$6.50 for subscription and stating that it was desirous of securing agencies of American manufactures, especially such as cycle, cycle bells, cycle lamps, motor lamps, motor parts, domestic hardware, sporting goods, etc. The company adds:

We feel sure if American manufacturers will take advantage of the favorable opportunity now offered they will be able to establish themselves permanently in the United Kingdom and Europe generally, as opportunities such as the present one will not occur again.

The Central Trading Co., 301 Hornby road, Bombay, India, writes asking for information about American export and import trade, and states that it desires the MANUFACTURERS RECORD sent it for subscription, and that it also desires the lowest advertising rates, while from Kharkoff, Russia,

comes a letter from V. A. Panchenko, stating that he has given instruction to the "Skandinaviska Kreditaktiehögskola" of Malmo, Sweden, to subscribe to the MANUFACTURERS RECORD in his name. If any of our readers desire to pronounce the name of the house in Malmo, acting agent in this case, we extend them the privilege of doing so.

From I. E. Macchi, Milano, Italy, comes a check for \$6.50 for a year's subscription, with the statement that Mr. Macchi is so much interested in the copies that he has seen, which are enabling him to keep in touch with American machinery and products, that he writes, "I shall not forget to recommend to my friends" the MANUFACTURERS RECORD. Mr. Macchi refers to having received letters in reply to one of his which recently appeared in the MANUFACTURERS RECORD from a number of manufacturers in this country, but he expresses regret that specific information was not given in these letters. He says:

I regret to complain that all offers received are too general and the catalogues mostly without prices or discount sheets, and therefore unavailable in establishing immediate communication, thus compelling a waste of time and money in further inquiries.

Owing to the praised American skill in trading, I suggest that people who have interest in export to Europe, and especially to Italy, ought to send, with their catalogues, prices and discounts and, wherever possible, samples to facilitate the immediate specification of trial orders. They should also offer "c. i. f. Genoa," or at least "f. o. b. New York," which is the more convenient port for shipment to Italy, because of the difficulty for me to determine the freights from the different works to the place of shipment and from there to Genoa.

The suggestions made by Mr. Macchi are in keeping with many that come constantly from United States consuls and from foreign business men, pointing out the failure of American manufacturers to deal in a common-sense, businesslike way with inquiries from abroad.

These subscriptions, all received in two or three days' mail, coming from such widely separated countries, are indicative of many similar letters seeking information about American interests or subscribing to the MANUFACTURERS RECORD in order to secure this information from manufacturers throughout the world.

BIG MOVEMENTS IN IRON AND STEEL UNDER WAY.

THE purchase of the Midvale Steel Co. is given increased importance by the fact that Mr. Alva C. Dinkey, president of the Carnegie Steel Co., has resigned in order to become the president of the Midvale Company, and Mr. Wm. E. Corey, at one time president of the Steel Corporation, will be chairman of the Midvale Company, while other men long identified with the iron and steel interests of the country will be active factors in the Midvale. The company has been organized in Delaware with a capital stock of \$100,000,000. It is quite probable that a number of other big concerns will be brought into the Midvale deal.

Judge Gary's broad view and his spirit of friendly relation to other iron and steel people are strikingly instanced in his comment upon Mr. Dinkey, who leaves the Steel Corporation to become the head of the Midvale. Referring to this, Judge Gary said:

We are very sorry to part with him. He is one of the ablest all-round steel men in this country, and he has rendered effective and satisfactory service to the Carnegie Company.

He will receive from the Midvale Company greater compensation than we could afford to pay. He has our confidence, friendship and best wishes for continued success. The rearrangement of the organization in the Carnegie Steel Co. will probably be decided upon and announced within a very short time.

The Bethlehem Steel Corporation is reported as negotiating for the Pennsylvania Steel Co., which would also include the Maryland Steel Co. The Cambria Company may likewise be involved in this deal or another connected with it. Rumors are rife of many deals pending or discussed which, if carried out, would mark an epoch in our iron and steel industry somewhat comparable to the formation of the United States Steel Corporation. The great undertakings now being planned indicate that we are entering upon a period of very broad expansion, and that the ironmasters of the country are preparing to make the most of the opportunity.

THE PEOPLE AND THE RAILROADS.

WHEN the railroads were prosperous, the minds of cheap politicians were directed toward laying them low in their prosperity. The public, listening to the siren songs of the so-called reformers, curtailed revenues, imposed drastic and unnecessary legislation until, tied in every limb, the transportation giants were laid low. Today a railroad has virtually no function save to carry freight and passengers at a rate willed by the people, under conditions imposed not by competent traffic men, but by incompetent office-holders; to pay employees and to pass dividends.

For the sins of the officers and directors of railways the public should have devised laws which would have ended the careers of the transgressors. But the burden of pay was placed not upon the guilty, but upon the stockholders, the bondholders, the innocent. They were the easier punished, and indignation demanded a victim.

The seeds of envy, greed, malice and unrighteous seizure sowed in the past generation are bearing fruit early in this. And the fruit will kill the tree unless remedial measures are adopted. The crop already has begun to nauseate the sane and the informed; it soon will disgust those at present who do not now know how vitally they are concerned in the harvest.—Arkansas Democrat.

The Democrat merely shows the full fruition of the seeds planted during the last ten or fifteen years. From the beginning of this active, vicious propaganda against railroads and business interests generally the MANUFACTURERS RECORD pointed out the inevitable penalty which the people would have to pay in lessened business and the general retrograde in railroad construction and development.

There was nothing surer on earth than that the gospel of hate so vigorously proclaimed by demagogues would produce a harvest of suffering and poverty, not of the railroads alone, but of the people themselves.

The industrial depression of the last seven or eight years and the general inactivity are all directly traceable to a greater or less extent to the malign influence against railroads and business corporations generally, and this can be said without in any way excusing or palliating the sins of the railroads. They made many stupid and inexcusable blunders; some of them are still making such blunders, but, broadly speaking, the railroad men of the country are earnestly and honestly seeking to manage railroads aright and to give to the public the best facilities possible.

Antagonism between the railroads and the people produces exactly the same results that antagonism and war between nations produce—both lose and neither is benefited by the contest.

The war against the railroads was illustrative of that rampant spirit of enmity against success or against great achievements, which had no real foundation, but which was brought into being and cultivated into larger life by demagogues who sought only their own individual advancement and who were utterly reckless of the future welfare of the country.

The name of the demagogues who led in this campaign is "legion," for they have been found in every section of every State, in every legislative assembly from City Council up to Congress, or, perchance, put it from Congress up to City Council. Sometimes it is hard to know in which place there is to be found the largest percentage of pure, unadulterated demagoguery and lack of information or an unwillingness to acquire information.

ANOTHER TEXAS BANKER DRAFTED BY NEW YORK.

J. HOWARD ARDREY is the latest addition to the list of Texas bankers transplanted to important positions in New York city. Announcement is just made that Mr. Ardrey has been elected vice-president of the National Bank of Commerce of New York, the second largest national bank in the city, and that he has accepted the position.

Mr. Ardrey is a native of Dallas, forty years of age. He will not resign his present position of vice-president and cashier of the City National Bank at Dallas until he goes to New York January 1.

Mr. Ardrey has been prominently identified with civic, political and religious activities in Dallas. He is a forceful speaker and writer, and through his efforts and arguments was largely responsible for the selection of Dallas as the site for one of the United States reserve banks. It is understood that the position to which he has been elected was especially created for him and that it is to be one of executive importance and responsibility.

Why Iron and Steel Men and Capitalists Are Urged to Take Part in Southern Development

LETTERS FROM A LEADING MANUFACTURER AND A REPLY—A WARNING GIVEN AGAINST SPECULATION IN WAR STOCKS.

Philadelphia, Pa., October 1.

Editor Manufacturers Record:

We have read your open letter under date of the 30th ult. to the United States Steel Corporation, the Bethlehem Steel Co., members of the American Iron & Steel Corporation, J. Pierpont Morgan and others very carefully, and fail to see any justification for such an article.

Why do not the manufacturers of iron and steel in the South independent of the United States Steel Corporation organize companies and start to produce some of the war munitions that are being produced in the East from Connecticut to and including Pennsylvania?

It is claimed that "the Lord helps them who help themselves," and if you stand on the street corner waiting for people to come and help you, you would be likely to stand there a long time before getting the desired assistance. Besides, the people of the North have plants of their own in the North standing idle, and why go South and build others while those in the North are idle?

There are plenty of orders the South could get if the South could do the work, and I see no reason why they should not get busy and do something, instead of imploring the United States Steel, Bethlehem Steel or any other institution to start manufacturing plants for them.

Yours truly,

THE REPLY OF THE MANUFACTURERS RECORD.

Baltimore, Md., October 2.

Dear Sir—Acknowledging receipt of yours of October 1. You are quite right in suggesting that the South ought to do more for itself and by itself, but there are other phases connected with the matter that do not seem to have occurred to you. The United States Steel Corporation controls the Tennessee Coal, Iron & Railroad Co., with all of its allied interests or plants. It is the one great enterprise that is in a position to lift the Southern iron and steel industry to a higher plane. It would have done far more in this respect than it has done but for the fact that under President Taft a suit was entered to dissolve the Steel Corporation, and the suit was continued under President Wilson. Owing to this suit, the Steel Corporation has felt some hesitation in spending large money for development of the Tennessee Coal, Iron & Railroad Co.'s vast properties in Alabama, but it has spent a very large amount of money for developing other properties which it owns in Pittsburgh and elsewhere. What I present in the editorial I have urged in person on Judge Gary.

The Bethlehem Steel Co. is reaching out in its operations. It is extending its field work and broadening all of its plans. It has the command of skill and of capital, and the South lacks both of these in respect to the largest development of iron and steel enterprises, and therefore I included the Bethlehem company in my open letter just as I have pressed the matter individually upon Mr. Schwab's attention.

There are many members of the American Iron and Steel Institute who recognize the pre-eminent advantages of the South for the manufacture of iron and steel, but who are not in any way interested financially in the development of these resources. I wanted to press the matter upon the attention of many of them, as I have repeatedly done in person and by correspondence for some years.

Messrs. J. P. Morgan & Co. represent a great many hundreds of millions of dollars that have been invested in the South largely through their operations. Their firm reorganized and refinanced the Southern Railway Co., with its 8000 miles of road. Their firm has been in very intimate financial relation with the Louisville & Nashville and the Atlantic Coast Line. It is in their power to take a very active part in the development of the South and in turning capital into this section. In making such investments as this, and in taking an active part in the development of the South, they would be strengthening the securities on Southern properties

which they have placed; they would be benefiting the nation as well as their own clients by aiding in the broadest development of the industrial potentialities of the South.

Had it not been for the capital of New York, the iron and steel interests of parts of Pennsylvania and of the West would never have been developed to the present extent. The greatest plant of the United States Steel Corporation at Gary, representing probably \$75,000,000 of investment, was not built by the local money of Gary, but by capital furnished by New York. The plant that is being built at Duluth by the Steel Corporation is not being built by the local capital of Duluth, but by capital furnished by the Steel Corporation, which, in all its financial operations, has largely to look to New York as the center of the nation's finances.

Mr. Schwab did not create the amazing development now seen at Bethlehem out of the local money to be found in Bethlehem, but he secured the money for his work of expansion in New York, and Bethlehem and the nation are getting the benefit of it.

Had it not been for the capital of New York and Boston and of England the West would never have been developed up to the present time, except to a very limited extent. To the hundreds of millions of Eastern and English capital poured into the West, apparently without limit, for half a century, is due the amazing progress of that section. To the West and to other sections of the country the South, between 1865 and 1900, gave about 3,500,000 of its white people, many of them having become the foremost men in finance, in railroad and in manufacturing in New York, in New England and throughout the West, and to the Pacific coast. It is not, therefore, a beggar's plea by any manner of means when the Steel Corporation and the Bethlehem Steel Co. and Morgan & Co. and others are urged to turn their thought to the South and to give to the development of that section the energy and the capital which they so liberally contributed to the building up of the iron and steel interests of many parts of Pennsylvania and to the general manufacturing and railroad and business interests of the entire West and the Pacific coast.

The South asks no favor of these except that of mutual profit. It has limitless resources awaiting development, needing capital by the billions for full utilization. It offers to the investor the opportunity to come in and take part in this development to the benefit of the capitalist and to the benefit of the South, and, at the same time, to the broader benefit of the entire nation, for it is true today as when it was first written, more than a quarter of a century ago, by your own distinguished statesman, Wm. D. Kelly, "the development of the South means the enrichment of the nation." Until this phase of Southern development is fully understood and grasped with that broad view of Judge Kelly, until it is seen that the rounding out of national life cannot attain its fullest fruition until the South shares in the abounding prosperity and progress of the rest of the nation, there will be a lack of the proper appreciation of the vital relation of the South to national welfare and national progress.

I am glad to have received your letter. The MANUFACTURERS RECORD always welcomes criticisms or suggestions from its readers in whatever section they may be located, and I trust that the view of the situation which I have presented will be as welcome to you as your letter is to me.

Very truly yours,

RICHARD H. EDMONDS, Editor.

A SECOND LETTER IN REPLY TO THE MANUFACTURERS RECORD.

Philadelphia, Pa., October 4.

Editor Manufacturers Record:

Yours of the 2d received, and you do me too much honor by replying to my letter, and that, too, as exten-

sively as you have done. I am only a foundryman, and that, too, since I was 16 years of age, consequently not qualified to answer an editor. There are some things I have learned from experience that you probably would not think about, but they are serious stumbling-blocks to the successful starting and operating of new industries in new fields.

Skilled mechanics do not grow; they have to be made, and while they are being made the company that attempts to run the business with a limited capital is likely to meet with disaster. If the South will agree to finance new works, I feel satisfied they will get all the plants they want.

Our experience in starting a plant but a few miles from Philadelphia showed us that skilled labor will not move unless some inducements are offered to them. Homes have to be provided for them, etc. With our experience along this line still fresh in our minds, we would advise our friends to be careful.

You are right about New York capital, but as you know the city of New York has collected the wealth of the entire country, whether it be the successful miner from California or the Pennsylvanian with his harvest from coal, oil, iron or steel, or from the intermediate region zinc, lead and copper, all have contributed to make New York what it is today. Even J. P. Morgan & Co.'s head is a quiet Philadelphian without bluster or noise. Like the man in the stocks, capital is now hung up in New York without doubt.

I have been in the foundry business from a boy, and from my (nearly) 62 years' experience know something of the struggles and efforts to bring success in that line.

THE WAR GAVE THE FIRST LIFT TO MANY INDUSTRIES OF THE NORTH, OWING TO THE PREMIUM ON GOLD, WHICH WAS A VERY HIGH TARIFF, ENABLING MANY MANUFACTURERS TO GET GOOD PRICES; 400 PER CENT. BEYOND PRESENT PRICES WAS NOT UNCOMMON, AND THAT FIGURE AND EVEN MORE WAS OBTAINED FOR GOODS. Hence to start now and compete with prices ruling today, with any but the most expert mechanics, in my judgment, would mean ruin; consequently, you can see why men and even large moneyed interests will not venture. And can you blame them?

J. P. Morgan will not finance a railroad unless he has liabilities scaled down or assessments made to make good what he considers deficits.

I was very much pleased at your writing me. I give you credit for your efforts to help the South, but my judgment is that the South had better remain quiet and wait her turn, because I am convinced business is not healthy in the North, and something in the North will happen when the war is over. Fifty-five war stocks have advanced since January 1, 1915, over \$832,000,000 in value, while all the orders received for war materials aggregate less than \$1,000,000,000. Somebody will get left. Don't buy too many war stocks. Cotton will be needed after the war is the advice and opinion of

Yours truly,

Our friend, whose name we do not give, because his letters were not for publication, presents some interesting facts showing from personal knowledge the effect of the Civil War in developing Northern industries. His warning to beware of speculating in war stocks and his reference to cotton are both very timely and very true, but we do not accept his judgment as to the South remaining quiet. Though he calls himself a foundryman, he is the head of a great manufacturing company.

Vacuum Cans to Be Manufactured at Charleston, W. Va.

Vacuum milk cans and other metal containers will be manufactured at Dunbar, an industrial suburb of Charleston, W. Va., by the American Vacuum Can Co. This corporation will be chartered with \$400,000 capital stock by U. G. Fletcher and Fred Paul Grosscup, president of the Dunbar Land Co., both of Dunbar. Mr. Grosscup wires the MANUFACTURERS RECORD that the plant will be 200x150 feet, of brick and steel construction, costing \$25,000, the machinery to cost \$50,000 and have a daily capacity of 1000 cans. The Dunbar Land Co. has a two-story 100x75-foot building costing \$10,000, which it expects to transfer to the can company and to erect a one-story brick and steel 200x100-foot addition costing \$10,000. Manufacturing will be undertaken under the LeSieur patents.

Excessive Interest Charged by Many National Banks

COMPTROLLER WILLIAMS GIVES THE FIGURES AND URGES REFORMS
SAYS, HOWEVER, THAT MOST INSTITUTIONS CONDUCT
BUSINESS ON A HIGH PLANE.

[The address recently made by Mr. W. P. G. Harding of the Federal Reserve Board, at Raleigh, in the course of which he incidentally touched upon the high rates of interest charged by some bankers, is followed now by an elaborate address before the Kentucky Bankers' Association by John Skelton Williams, Comptroller of the Currency, in which he goes much farther into the interest question than did Mr. Harding, as the latter's address dealt mainly with the cotton crop, while Mr. Williams' address deals specifically with banking. The facts presented by him are calculated to create a widespread discussion throughout the country and to bring into disrepute bankers who charge such exorbitant rates as some of the cases mentioned by him.—Editor Manufacturers Record.]

In his address before the annual convention of the Kentucky Bankers' Association at Frankfort on October 6, John Skelton Williams, Comptroller of the Currency, related numerous instances and cited facts which more than substantiated the recent editorial in the MANUFACTURERS RECORD, entitled "Will Banking Be Controlled by Legislation, Ultimately, as Public Service Corporations Now Are?" and which directed attention to the high interest rates which the South has had to pay for money.

After remarking that for the first time in our history at crop-moving time the banks in all parts of the country could secure all money needed for legitimate requirements at interest rates ranging from 2½ to 4 per cent. per annum on time, Mr. Williams, in pointing out the change which this indicated, said that he recently had a letter from the president of a national bank in one of the neighboring States who complained that the Federal Reserve System threatened to "undermine" the high interest rates which his bank had been enjoying, and furthermore, that he, Mr. Williams, could give the names of some national banks which have admitted making loans to customers at 10 per cent. per month, or 120 per cent. per annum, and that some banks had owned up to rates much higher than that. Such rates were disreputable and without excuse, whatever the security for the loans might be.

He then related how the president of the First National Bank of a certain Texas city complained last November that the Federal Reserve Board fixed a rate of 6½ per cent. for long-time paper at the Federal Reserve Bank of Dallas, the rate for 30 days or less being 6 per cent., and said that banks of good credit could get money cheaper elsewhere and a reasonable rate was wanted to assist the banks in granting accommodation to business men. This bank president was called upon by the Comptroller to send a list of loans made during the preceding three or four months in excess of 8 per cent., showing the rate of interest charged in each case. When the list at last arrived, after objection to furnishing it had been vainly made, it showed that during the period named the bank had made more than 400 loans, "varying in amount," said Mr. Williams, "from \$50 to over \$10,000 each, upon which it had charged from 10 per cent. to 15 per cent.; 115 loans had been made during this period at rates ranging from 15 per cent. to 25 per cent.; 44 loans from 25 per cent. to 40 per cent.; 32 loans between 40 per cent. and 60 per cent., and upon 11 loans (including one for \$2067 for 30 days upon which he had charged 64 per cent. interest, and a loan for \$553 for two months upon which he had charged 85 per cent. interest) the interest rate had ranged from 60 per cent. to more than 100 per cent. Most of the loans at the extortionate rates, however, were for comparatively small amounts, to people who were least able to afford such rates." * * *

"The bank that lends at such rates is destroying its constituency and is at the same time committing slow but sure suicide. The proper function and the course of safety for the bank is to be a constructive force in its community, to build up and establish, to infuse life into commerce, develop health and vigor, rather than suck its life blood. The effort of the present system is to encourage that purpose and policy." * * *

"It is the cause of some regret, but no surprise," continued Mr. Williams, "that United States Senator Weeks of Massachusetts, whose activities were largely concentrated in a Wall Street brokerage house before he

emerged to teach us wisdom and to save the Republic, does not, as I understand him, share in or accept these theories." * * *

The Comptroller then told his hearers of the circumstances under which he sent the telegram last year in which he asked bankers why they were charging on certain collateral loans more than 6 per cent. interest. He quoted the formal protest of a large bank in New York city and also his reply, in the course of which reply he said:

"In such times as these through which we have been passing, I consider that the weaker concerns, and those who may not have been in possession of abundant resources, should have been treated with special consideration and forbearance, and to levy against and exact from them excessive or unjust interest rates simply because they were, under unparalleled conditions, unable to help themselves, is not defensible.

"As I have tried to show you," said the Comptroller, resuming his address, "I do not concede that even in the largest and richest cities and the stormiest times bankers have the right to pile on business all the traffic will bear. It is neither wisdom nor righteousness, not even intelligent avarice, to take advantage of strain and distress to squeeze from hard-pressed borrowers excessive and destructive rates of interest. I can say for the present Treasury Department and for the Administration that they will do all the law will allow them to do to hinder extortion and suppress oppression everywhere. The old familiar, homely maxim, 'live and let live,' is as sound morals and business in the greatest bank in the world as in a general store at a cross-roads.

"The Senator referred to told his hearers, while he was speaking of the regulation of interest charges, 'the banker himself is the man to determine that.' He would throw off the bridle and leave each bank free to charge what it could get. Such a policy would be bad and dangerous, even at the business centers, where borrowers are men of experience and skilled in business, where competition is available, where the active dealer in securities and commodities is supposed to know his rights and to have the knowledge and information to take care of himself. But the real brutality and horror of it develop in the more remote districts, in small communities of agricultural districts, having but one bank, or in which two or three banks combine to maintain rates on money. Some reports from the South and West, the Northwest and the Southwest, especially in the wheat and cotton sections of the Southwest, are blood-curdling. They are like the stories from darkest Russia, of the oppressions inflicted on the peasantry; like the ghastly history of the wrongs done the French country people by the old nobility, the Seigneurs."

"The reports received at the Comptroller's office show indisputably that in some States and sections borrowers, especially small borrowers, have been and are being subjected to extortions and exactions which the average man would consider impossible in this enlightened age. These revelations show that there are national banks which, instead of being constructive forces, aiding in building up their communities and stimulating industry, have more nearly degenerated into vampires sucking the life blood of their constituents. The saddest part of it is that these exactions are wrung from the poorest men in the community, especially the small farmers, who can least afford to pay the fearful tribute extorted from their necessity." * * *

"One thousand and twenty banks in different sections

of the country, out of the total of 7615 banks, admitted that they were receiving an average of 10 per cent. or more—some an average of 18 per cent.—on all their loans.

"Those receiving an average of 10 per cent. and upwards included 2 banks in Illinois, 6 in Minnesota, 2 in Missouri, 23 in Georgia, 6 in Florida, 21 in Alabama, 2 in Louisiana, 315 in Texas, 17 in Arkansas, 3 in Tennessee, 90 in North Dakota, 25 in South Dakota, 18 in Nebraska, 5 in Kansas, 38 in Montana, 14 in Wyoming, 37 in Colorado, 25 in New Mexico, 300 in Oklahoma, 12 in Washington, 10 in Oregon, 13 in California, 2 in Utah, 1 in Nevada, and 33 banks in Idaho.

"The statistics tell us that in large sections of this country the farmer, the very foundation of our commerce, the inspiration of our enterprise, the greatest producer and the greatest consumer, instead of being the most settled and firmly established member of the community, has become almost the most migratory and unstable of our citizens. The census figures give us good ground for believing that the farmer, in many sections of the country, has been driven from his home, and is being driven from his home from year to year by the rapidity of the unscrupulous money-lender, who charges him for the use of money for one year as much as he ought to pay for its use for 10 or 15 years. He endures and pays as long as he can and then he sells his livestock and disposes of such other property as he may have—or lets the sheriff dispose of it—and moves on to start life anew.

"The money-lender collects his principal as well as his extortionate interest, for I am informed that the farmers' paper nearly always is paid, however great a sacrifice the farmer may have to make to meet these obligations.

"Let me illustrate the methods of some of these bankers by giving you the facts and figures as taken from the sworn statements submitted to the Comptroller's office by the national banks in two particular States in the Southwest.

"In one of these States there were 131 banks which reported that they charged a maximum rate of interest ranging from 15 per cent. to 24 per cent. per annum, 67 banks whose maximum rate ranged between 25 per cent. and 60 per cent. per annum, 22 banks which charged between 60 per cent. per annum and 100 per cent. per annum, 18 banks whose maximum rate was from 100 per cent. to 200 per cent. per annum, and 8 banks which owned up to having charged maximum rates ranging between 200 per cent. and 2000 per cent. Most of these disgraceful and unprecedented rates were for comparatively small loans.

"Some of the banks charging these extortionate rates of interest have attempted to explain them under one pretext or another, but a very large proportion of them offer no excuse whatsoever. One particular bank, whose list included 168 loans which had been discounted between May 1 and June 23, 1915, at rates ranging from 20 to 50 per cent., explained that: 'Practically all these small notes are chattel loans on which our loss is heavy, and when the loss and expense of collection are deducted, our net revenue will not average over 10 per cent. or 12 per cent.'

"As this bank claimed to have sustained 'heavy losses,' I looked up its record for the past five years, and found that the total amount charged off on account of losses of every kind for this entire period had amounted to less than \$6000; and this same bank, during the 15 years of its life, had declared to its stockholders dividends amounting, in the aggregate, to more than 700 per cent. on its original capital.

"We read much of the infernos of the slums of the great cities, of degradation and misery and squalor, of the grinding callousness of tenement landlords and sweat-shop operators. Here in the country we find bankers, men in business that should be the most respectable, as it is the most responsible, of all secular vocations, literally crushing the faces of their neighbors, deliberately fastening their fangs in the very heart of poverty."

In concluding the Comptroller warned his hearers of the probable effect of usury upon the people of the country, but said he was gratified that a large majority of the national banks are conducting their business upon a high and honorable plane, working for the welfare of their communities as well as for the interests of their stockholders.

How Bankers Are Co-Operating to Conserve the Farmers' Interests

AN ABLE PRESENTATION OF THE BANKERS' CASE, WITH AN INCIDENTAL WARNING AGAINST POLITICIANS.

[Mr. George W. Rogers, vice-president of the Bank of Commerce of Little Rock, is one of the leading bankers of that enterprising city. At a recent conference in Little Rock of members of the Farmers' Union, bankers and merchants, Mr. Rogers made an address dealing with the relation of these various interests and the question of the rates of interest charged by bankers and the reasons therefor, from which we take the following extracts.—Editor Manufacturers Record.]

The banker's viewpoint in the relations between banks and farmers, and also as to a reasonable rate of interest that may be charged, were interestingly presented in an address by George W. Rogers, vice-president of the Bank of Commerce of Little Rock, Ark., at a conference which took place in that city recently between members of the Farmers' Union and representative bankers and merchants. Liberal extracts from Mr. Rogers' address are given herewith.

A few years ago a person might have been accused of being a dreamer to have thought that the farmers, merchants and bankers would co-operate in a most friendly way for their mutual interests. You might have been addressed on this subject by a farmer or a dealer in cotton, but I want to call your attention to the world's most famous marketing campaign, and that the man who originated it and carried it to a successful conclusion was not a farmer or a merchant, but had been a goat-herder and an ex-convict. If you would like to know more of this campaign—and our campaign will have to follow much the same lines that his did to be a success—just turn to your Bible and read the wonderful story of Joseph.

It has been said that the time to commence the education of a child is 100 years before it is born. So I think the time to commence the financing of the movement of next year's crop is now. It should be done by thrift and economy and care in handling the present crop, to be followed this winter, next spring and summer by the same movement, looking to feed yourself off the farm instead of out of a tin can and a paper sack. We have for too many years looked too much to cotton—the great money crop. It always will be our great money crop. But this year it is estimated the South's grain crops exceed by \$300,000,000 in value of the 10 years' average of our cotton crops.

It is just as important for us to save the spending of money as to make it. We are in a position to feed ourselves, grow a crop of greater value than our cotton crop, and have our cotton crop as a surplus and a profit crop. This means much more to the country than the money it brings in. It means happy and contented homes, and without a happy and contented home no man can work, and you cannot hope to keep the boys on the farm.

With plenty of feed for the livestock, a good garden, chickens and a few pigs for the home, it means all are properly fed and able to do a full day's work.

As I see our marketing proposition, the problem is to help the small producer. The large producer is a man of means and credit and standing, but the price he receives for his cotton is dictated to a great extent by the distress cotton that is thrown on the market.

It looks to me as though our problem was to so market our cotton that it could be placed on the market for sale at the most advantageous time, and that the small farmer, with notes maturing in October and November, would not be compelled to sell his cotton at any price it would bring to meet these obligations.

The small farmer, as a rule, is a man in poor credit. When he borrows money he must learn that he must keep to his promise to pay on the date agreed upon. I do not mean that the small farmer should, of necessity, sell his cotton to meet the obligation, but that he should make a new business transaction, based not on a crop to be grown, but on the collateral of his crop already grown.

You hear a great deal of what the Government is going to do for you. Governments are not organized to enable a cotton farmer to make a profit on his cotton.

They are organized to see that everyone has an equal chance to succeed, and that is all. I do not believe that the Arkansas cotton farmers is a pauper or the asker of alms, or asks anything else except an equal chance with others. And I believe that the small farmer, to a large extent, has got to receive his accommodations from the small bank or the merchant, or some bank in the community in which he lives and is known. And I believe those banks are willing and able to take care of any reasonable demands made upon them. The farmer must do his part. His cotton will have to be warehoused in a responsible warehouse where the loaner can know that when he presents the warehouse certificate he can get the cotton—the identical bale that was deposited there.

When the farmer does business with a bank the transaction is of a very different nature. A bank is not a warehouse for money, but, in the truest sense, a manufacturer of and dealer in credit. You hear the statement: "I have money in the bank!" That is not true. When you deposit in a bank you have no money there. The bank owes you; they do not promise to return the identical money you deposit. A very few of the deposits are made in money. Checks, which represent money, are deposited, drafts on other cities, and items of like nature. While all of these credits immediately on deposit are subject to check, they are not by any means all loanable funds. Checks on other cities have to be collected, drafts forwarded to their destination and collected, and only such portion of the deposits as have been turned into money are loanable funds. From these so-called "loanable funds," or actual money and actual credits in other banks, must be deducted the legal reserve which banks are required to carry against the deposits. All good banks nearly all the year carry a reserve considerably in excess of that required by law.

This brings us to an interesting question—the question of what is a correct and proper rate on a loan. I know you gentlemen, when you deal with a bank, expect to make a profit out of the deal, and you expect the bank to make a reasonable profit out of the business they transact for you. It has been truthfully said that on any business transaction on which both parties do not make a profit there is something dishonest about the transaction. So I am going into the question of facts and figures and quote actual rates.

I know a bank that I consider pretty well managed, which during the year 1914 took care of its customers. It made every loan that a client of theirs was entitled to ask for, and to do this at times borrowed large sums of money. The only way to figure what the cost of your loanable funds is is to figure how much your average loans were, what they cost you in the way of interest on rediscounts, interest on savings deposits, interest on certificates of deposit, interest on other deposits, expenses, taxes, etc. This bank carried deposits in 1914 that averaged \$1,800,000, cash on hand that averaged \$700,000, and loans of \$1,500,000. The cost to them of their loanable funds was 5.77 per cent. Their average rate received on loans was 7.23 per cent., leaving a net profit on their loans of 1.46 per cent., or \$14.00 net profit on every \$1000 they kept loaned for a full year.

You see wonderful rates quoted in the papers, of how cheap money is in some places. But, frankly, you cannot get the money. You have also heard it said that if a man had a bucket of ice water in a certain place he could sell it for a million dollars. But we must talk on Arkansas conditions to make Arkansas rates.

If Arkansas banks made a preferential rate to farmers of 6 per cent. they would of necessity have to loan

others of better credit and higher standing at the same rate. And the small banks would either have to go out of business or reduce the cost of their loanable funds. The only way that they could reduce the cost would be by cutting the rate they pay on savings bank deposits.

Do you gentlemen think that for the small difference in the rate between 6 per cent. and 8 per cent. to the few farmers who will desire to borrow for a short time the cutting of the income to the many thousands of savings bank depositors from 25 to 50 per cent. would be justified? Again, would not savings bank depositors withdraw their funds from Arkansas banks and place them in banks in other States where higher rates were paid?

I want to show you what a small matter this is to the farmer. Take the loan of \$300 for 60 days. The farmer would not consider going to all the trouble of warehousing and borrowing on his, say, 10 bales of cotton unless he expected to make at least one cent a pound; that would be a profit to him of \$50 on the transaction. The interest he would pay, even at 8 per cent., would only be \$4 on the loan. On a loan of \$30 on one bale of cotton, the difference in interest on a 30 days' loan of between 6 per cent. and 8 per cent. would amount to the value of one-half of one pound of cotton, or five cents.

I ask you on this whole transaction to think and reason for yourselves. Do not let anybody do it for you, or tell you what to think or how to think. I want to add one word of warning. There is an old saying: "Beware of the Greeks bearing gifts." And I modernize this by saying, beware of the politician who, just prior to election, evidences great friendship and regard, and a desire to be guardian for and take care of and do something for the farmer. This is, gentlemen, to be done at somebody else's expense. Possibly he is your friend—possibly what he tells you is true—and possibly he just wants your vote.

Gentlemen, stop and think! Are these politicians, big and little, the friends of the farmer, or do they want his vote?

The farmer and the banker, from the nature of their business, are rooted to the soil. We must both stay here, and we must both co-operate and work with each other for the benefit of both.

Alabama Officially Endorses the Muscle Shoals Hydro-Electric Development.

Birmingham, Ala., October 2.—[Special].—The State of Alabama has officially recognized the importance of developing Muscle Shoals, near Florence, on the Tennessee River, as a hydro-electric center and for the facilitation of river navigation.

One of the last acts of the House and Senate before it adjourned, a few days ago, was the adoption of joint resolutions authorizing Governor Henderson to appoint a citizens' committee of 12 representative people, which, with a committee composed of five members from the House and five from the Senate, is to comprise a delegation that will go to Washington during the early days' session of the next Congress, and will urge Congress to adopt the Muscle Shoals project as recommended by the Government engineers.

The resolution adopted jointly by the two State bodies goes very exhaustively into the advantages and possibilities and points out the importance of the Muscle Shoals development. This resolution will be presented by the citizens' committee and the joint legislative committee not only to Congress, but copies will also be presented to President Wilson, the Secretary of War, the Secretary of Agriculture, the chairman of the commerce committee of the Senate, the chairman of the rivers and harbors committee of the House and to each United States Senator and Representative in Congress from Alabama.

The citizens' committee appointed by Governor Henderson is as follows: G. W. Taylor, Demopolis, chairman; Frank P. Glass, Birmingham; John Gamble, Troy; Judge John C. Anderson, Montgomery; C. W. Ashcraft, Florence; O. P. Ford, McFall; Irvine Craighead, Mobile; Col. C. C. Harris, Decatur; George C. Denny, Tuscaloosa; Dr. C. C. Thach, Auburn; Col. J. W. Worthington, Sheffield, and T. W. Pratt, Huntsville.

Southern Foundrymen Missed Important Opportunity at National Foundrymen's Convention

EXHIBITS AND ADDRESSES THAT WERE HIGHLY EDUCATIONAL IN CHARACTER—MANY LESSONS THAT NEED TO BE STUDIED.

[Special Correspondence Manufacturers Record.]

[At the annual meeting of the National Foundrymen's Association at Atlantic City last week, Southern foundrymen and Southern makers of coke and pig-iron were very slimly represented. This gathering, which was of unusual importance, should have been generally attended by leading foundrymen from the South, and the iron and coke people of the South should have been largely represented by exhibits. Unfortunately, this was not the case, and our correspondent, who is personally acquainted with nearly every foundry from North Carolina to Texas, in calling attention to this failure of the South to utilize the opportunity, urges a larger attendance from the South and general exhibits from this section at all future meetings.—Editor Manufacturers Record.]

Atlantic City, October 2.

As a whole, there is no class of industrial men more open to conviction or more willing to accept practical suggestions leading to bettering conditions in and around their plants than the average Southern foundryman. This has been particularly true within the past three or four years. He has come to the realization that by the very order of things progressive he either has to look to the carrying out of plans to supply a better and stronger casting at a remarkably low cost, or else stand by and see his plant relegated to the scrap heap on account of inferior work done by the use of inferior raw materials and the application of crude and expensive methods. The day of inferior gray iron castings is a thing of the past. Buyers will not be satisfied with the "old scrap material" casting any more, but, on the other hand, if they cannot get a satisfactory gray iron casting the work is promptly turned over to steel or malleable foundries. This, of course, means that there must be a careful study made of the metals entering into the manufacture of gray iron castings, as well as facilities for their economical and expeditious production and handling.

These facts were very forcibly brought to the surface by eminent authorities on cost of production, raw materials best suited for specific work, and the display of machinery, foundry accessories, etc., at the American Foundrymen's Association, which held sessions at Atlantic City September 27 to October 1, inclusive. Speaking strictly from a Southern standpoint, there was much food for thought spoken and displayed at this convention. While there are many excellently equipped foundries in the South, yet it is very evident that the average foundry methods, practices and conditions could be materially improved on. There were many interesting papers read, and many novel and practical, as well as efficient, machines and mechanical devices displayed at the convention.

There were more than 100 exhibits occupying space in the main building, machinery hall and annex of Young's million-dollar pier, each booth having on display samples of the products of the exhibits, pamphlets setting forth their merits and competent and well informed salesmen and instructors to engage the attention of visitors for the purpose of demonstrations. Following is a list of exhibitors:

Ajax Metal Co., Philadelphia, Pa.; Arcade Manufacturing Co., Freeport, Ill.; Athol Machine Co., Athol, Mass.; E. C. Atkins & Co., Inc., Indianapolis, Ind.; Ayer & Lord Tie Co., Chicago, Ill.; Jonathan Bartley Crucible Co., Trenton, N. J.; Berkshire Manufacturing Co., Cleveland, O.; Chas. H. Besly & Co., Chicago, Ill.; S. Birkenstein & Sons, Chicago, Ill.; Blystone Manufacturing Co., Cambridge Springs, Pa.; Bourse Machinery Exhibit, Philadelphia, Pa.; Brass World & Plater's Guide, New York city; Brown Specialty Machinery Co., Chicago, Ill.; Buch Foundry Equipment Co., Bridgeport, Pa.; Buckeye Products Co., Cincinnati, O.; Carborundum Co., Niagara Falls, N. Y.; Cataract Refining & Manufacturing Co., Buffalo, N. Y.; Challenge Machine Co., Philadelphia, Pa.; Charles J. Clark, Chicago, Ill.; George P. Clark Company, Windsor Locks, Conn.; Clark Foundry Co., Rumford, Maine; Clearfield Machine Shops, Clearfield, Pa.; Cleveland Automatic Machine Co., Cleveland, O.; Clipper Belt Lacer Co.,

Grand Rapids, Mich.; Thos. E. Coale Lumber Co., Philadelphia, Pa.; Cowan Truck Co., Holyoke, Mass.; Joseph Dixon Crucible Co., Jersey City, N. J.; Factory (A. W. Shaw Publishing Co.), Chicago, Ill.; Felt & Tarrent Manufacturing Co., Chicago, Ill.; Foundry Manganese Co., Philadelphia, Pa.

Gardner Governor Co., Quincy, Ill.; Gardner Machine Co., Beloit, Wis.; General Electric Co., Schenectady, N. Y.; Goldschmidt Thermit Co., New York city; Graceton Coke Co., Graceton, Pa.; Great Western Manufacturing Co., Leavenworth, Kans.; F. A. Hardy & Co., New York city; Benjamin Harris & Co., Chicago, Ill.; Hayward Company, New York city; Herman Pneumatic Machine Co., Zelenople, Pa.; Herold Bros. Company, Cleveland, O.; Hill & Griffith Company, Cincinnati, O.; Ingersoll-Rand Company, New York city; International Molding Machine Co., Chicago, Ill.; International Steam Pump Co., New York city; The Iron Age, New York city; The Iron Tradesman, Atlanta, Ga.; Jennison, Wright Company, Toledo, O.; Julius King Optical Co., Chicago, Ill.

Landis Tool Co., Waynesboro, Pa.; Lehigh Coke Co., South Bethlehem, Pa.; Lincoln Electric Co., Cleveland, O.; David Lupton's Sons Company, Philadelphia, Pa.; J. S. McCormick Company, Pittsburgh, Pa.; MacLean Publishing Co., Toronto, Ontario, Canada; The Macleod Company, Cincinnati, O.; Mahr Manufacturing Co., Minneapolis, Minn.; Malleable Iron Fittings Co., Branford, Conn.; Metal Record & Electroplater, Bridgeport, Conn.; Metal Industry, New York city; Midland Machine Co., Detroit, Mich.; Monarch Engineering & Manufacturing Co., Baltimore, Md.; Mott Sand Blast Manufacturing Co., Chicago, Ill.; E. H. Mumford Company, Elizabeth, N. J.; Mumford Molding Machine Co., Chicago, Ill.; National Engineering Co., Chicago, Ill.; New Haven Sand Blast Co., New Haven, Conn.; Norma Company of America, New York city; Norton Company, Worcester, Mass.

S. Obermayer Company, Chicago, Ill.; Osborn Manufacturing Co., Cleveland, O.; Oxweld Acetylene Co., Chicago, Ill.; Pangborn Corporation, Hagerstown, Md.; J. W. Paxson Company, Philadelphia, Pa.; Penton Publishing Co., Cleveland, O.; Pickands, Brown & Co., Chicago, Ill.; Henry E. Pridmore, Chicago, Ill.; Railway Age Gazette, New York city; Ready Tool Co., Bridgeport, Conn.; Richey, Browne & Donald, Inc., Maspeth, New York city; Robeson Process Co., New York city; Rock Island Manufacturing Co., Rock Island Manufacturing Co., Rock Island, Ill.; Rogers, Brown & Co., Cincinnati, O.; Sand Mixing Machine Co., New York city; Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.; Simonds Manufacturing Co., Fitchburg, Mass.; W. W. Sly Manufacturing Co., Cleveland, O.; R. P. Smith & Sons, Chicago, Ill.; Snyder Electric Furnace Co., Chicago, Ill.; Standard Sand & Machine Co., Cleveland, O.; Sterling Wheelbarrow Co., Milwaukee, Wis.; W. F. Stodder, Syracuse, N. Y.; Strong, Kennard & Nutt Company, Cleveland, O.; Sullivan Machinery Co., Chicago, Ill.; Tabor Manufacturing Co., Philadelphia, Pa.; Thomas Iron Co., Easton, Pa.; Titanium Alloy Manufacturing Co., Niagara Falls, N. Y.; Union Steam Pump Co., Battle Creek, Mich.; United States Graphite Co., Saginaw, Mich.; Waterbury Welding Co., Waterbury, Conn.; Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa.; White & Bro., Inc., Philadelphia, Pa.; Whiting Foundry

Equipment Co., Harvey, Ill.; T. A. Wilson Company, Reading, Pa.; E. J. Woodison Company, Detroit, Mich.; T. B. Wood's Sons Company, Chambersburg, Pa.; Wyoming Shovel Works, Wyoming, Pa.

While it may have been considered by many foundrymen of the South as being an inaccessible point to them, yet the middle and far West were represented at a ratio of 16 to 1 compared to the South. Of course, there were many papers read and discussions entered into which were of inestimable value to the gray iron and steel foundrymen, but the machines and devices demonstrated were of particular interest to any foundryman. Reprints of papers which were read, and stenographic reports of discussions entered into may be distributed to members of the association, and in that way some idea gained of the proceedings, but there is nothing that can take the place of or leave a lasting impression on the mind like having seen for one's self or had a practical demonstration made of the intricate workings of a machine or device. The different manufacturers of jar, squeeze, roll-over and pattern draw molding machines (both hand power and machine driven), sand-cutting and filing machine, "safety first" goggles and shoes, gyratory sand riddles (portable and stationary), metallic flasks (cast iron, aluminum and steel), for machine or ordinary floor, ladles and cranes, blow torches (for cupola, ladles, etc.), cupola blast meter, sand-blast machines and many other interesting and novel devices were giving continuous demonstrations of their product, all of which were well attended at all times. The pig-iron and coke producers also had their booths and demonstrations. For these reasons alone attendance on such conventions would pay every foundryman in the South who is really interested in bettering his product and getting ideas (or advancing ideas) that might lead to a more economical handling of his foundry by reason of adopting efficient cuts here and there, as well as adding necessary things.

The South and Southwestern foundryman is not alone in his dereliction in this respect, but a strong finger of "thoughtlessness" or "don't care" can be as truly pointed to the Southern producer or selling agency.

Some authorities in the South have taken the position that Southern iron does not need advertising; that it is a "medicine" to be sought. History can repeat itself in this respect. Southern iron is not immune from substitution. Why not advertise it so strongly and keep it before the Northern buyer so constantly and consistently that he will not take the time to search for or encourage a substitute? Also, why not establish such a close and permanent relation with the Southern and Southwestern foundryman as to make him feel that he is welcome to buy direct from Southern producers or agents the same as through middle Western representatives? His business may be comparatively small now, but it may grow to an attractive proportion. There is a possibility of Southern iron losing its identity when handled in the latter way, and the Southern producer may have to bear the brunt of the effects of the use of an inferior iron.

The same applies to coke. There is just as high-grade and economical coke produced in the South for foundry use as is produced in any section of the United States. Therefore, why should not the Southern coke producers in large numbers also have representation at these meetings just the same as the Northern producers? There was a time when the Alabama coke producers lapsed into a state of lethargy, only to awaken and find practically all their foundry coke business entrenched in the hands of Virginia and West Virginia coke producers. It has taken them from five to seven years of coking improvements at the ovens and equally as many hard and expensive years of traveling and demonstrating the quality of their product to regain this trade. If this can happen between domestic sections, it is not impossible for it to happen (by reason of low costs, etc.) between foreign sections. Therefore, it would be well for the Southern producers of pig-iron and coke to be on hand with samples of their products, not only to come in closer contact with Southern and Southwestern consumers, but to keep in touch with their Northern friends. It would likewise be well for the Southern and Southwestern foundryman to be on hand so that he may meet and become better acquainted with the pig-iron and coke producers who can best serve him.

The following questions should be well considered by every Southern foundry owner or purchasing agent:

Does your foundryman now understand what South-

ern irons and class of scrap peculiar to your section are best suited as a mixture for your general run or special line of castings?

Does he know from what furnaces these irons come, and where to buy them to best advantage?

Does he know what Southern cokes are best suited, their melting ratios under certain conditions, and where to purchase them to best advantage?

The statement of a seller that he has 1 foundry, 2 foundry or 2 soft iron for sale should not signify anything to an up-to-date foundryman. Different brands of iron at the same fracture grading may and often do not produce the same character of castings. Therefore, it is very essential for a buyer to know what furnace company produces an iron best suited to his needs. This can be accomplished by buying where the identity of the iron is not lost by going through too many hands, and in that way coming in direct contact with the producers or direct representatives of the furnace companies of the South.

The carrying out of such a plan gives the furnace representative an opportunity to study the foundryman at an angle quite different from the one at which he views him at his plant or office; he has more time to talk without experiencing a distracted mind incident to the operation of his plant. The foundryman likewise has the opportunity of viewing furnace and coke-plant photographs, modes of operation and inspecting and learning of the quality of the iron and coke from samples displayed and demonstrations of superior points. In addition to this, the foundryman has the opportunity of inspecting all the latest foundry machines and equipment, many of which will give him ideas and suggestions that he will be able to put into practice in his own way at his plant, thereby effecting a saving and convenience never before conceived of by him. Any foundryman who should attend a convention of this nature and go away without having stored in his mind or recorded in his memorandum book a wealth of knowledge on foundry practice and conditions of vital importance to his operation is indeed a poor observer and lax as to the things progressive.

The foundrymen of the South need all the facilities available for the effective, economical and progressive handling of their plants, as well as quite a little aggressiveness in seeking these things, thereby broadening the scope of their respective territories and getting down to the point where they can compete with any well-regulated plant in any section of the country. They do not have the "price-cutting" foundry to fear (for it will automatically eliminate itself), but should look well to the day when they shall be able to "sail along" with their neighbors who have been farsighted enough to take the time and spend the money to visit places where there is offered an opportunity to broaden out on the proper scale.

Y. A. DYER.

IRON AND STEEL INSTITUTE PROGRAM.

Papers to Be Read at the Meeting in Cleveland, O., This Month.

The program of papers and addresses for the meeting of the American Iron and Steel Institute at Cleveland, O., October 22 and 23, is as follows:

Presidential address, by Elbert H. Gary.

"Cleveland and Its Industries," by speaker to be announced later.

"Electric Furnace for Heating Billets, Castings, etc.," by Thaddeus F. Baily, president The Electric Furnace Co. of America, Alliance, O.

"Modern Methods of Burning Blast Furnace Gas in Stoves and Boilers," by Ambrose N. Diehl, superintendent blast furnaces, Carnegie Steel Co., Duquesne, Pennsylvania.

"The Developments of Alloy Steel for Commercial Purposes," by Edgar D. Rogers, general sales manager United Steel Co., Canton, O.

"Under-Advertising of the Steel Business," by George H. Jones, vice-president Inland Steel Co., Chicago, Ill.

"Recent Developments in Sintering of Iron Ores," by Bethune G. Klugh, engineer American Ore Reclamation Co., New York.

"Casting Steel Ingots," by Henry M. Howe, emeritus professor of metallurgy, Columbia University, New York City.

Moving pictures (evening), National Tube Co. and American Steel & Wire Co.

A Model Cotton Manufacturing Village

By MISS LENA RIVERS SMITH, Charlotte, N. C.

The prettiest things in the South, or perhaps in any portion of the country, in the form of homes for cotton-mill operatives or any laboring people, for that matter, are the new bungalows which the Wiscasset Cotton Mill of Albemarle, N. C., has recently completed for its operatives. They are strictly first-class, well built and artistic in design. Whatever criticism some mills may have deserved as to the kind of houses furnished to the operatives, the Wiscasset mill has certainly stepped beyond the shadow of a complaint in the innovation of a home instead of a house in the 38 new bungalows just completed.

Since the beginning of the cotton-mill industry cottages have been furnished to employees. At first they were crude, consisting of two or three or four rooms, but these have been gradually improved into cottages of three to five and six rooms, built for comfort by being well lighted and ceiled or plastered and with simple and neat design. This style of cottage has been adopted by so many mills that it has become known as a "type." While a number of mills have made a great improvement upon the typical cottage and have some excellent homes for their people, the Wiscasset is the first one to build anything as elaborate as a bungalow or incorporate artistic designs in the building plans.

Bungalow Hill, as the place is called, is situated in a grove, and every tree possible was left standing, which, with the excellent homes, makes it look like a fashionable suburb. The bungalows range in size from five to nine rooms, and every one is a beauty. No two of them are built alike, although the same floor plans are duplicated in a few instances, but with a different porch, a changed roof or a gable, and with the variety of paints used, an entire change is made. The only thing of similarity is the white trimmings which are used on all of the houses. There is nothing cheap in their construction, as the best of material is used, and each bungalow is built upon a solid rock or brick foundation for the front work. In several of them the rock is worked into a rustic effect, and there are a few rock chimneys and fancy rock porch columns, making very cozy and attractive homes. But words cannot justly describe them.

The interior harmonizes with the refined appearance of the outside, for upon entering one of these new homes good taste in the selection of material, harmonious effects and artistic work strikes a visitor forcibly. In some of the homes rock or brick is used for making mantels, and others are especially pretty, some of them being quartered oak or stained or painted to carry out the effect of other woodwork. Wood fiber plastering is used throughout the entire collection of homes, and the doors are of hardwood, with quaint panels and fitted with Yale locks and brass knobs. The electric-light fixtures are of brass, and plain and simple in design, such as one would find in a home of good taste.

The new bungalows were built to meet a requirement for extra help when the addition to the Wiscasset mill was completed. Bids from contractors were taken to build cottages similar to the others in the village, but the mill officials decided to launch a new scheme. Mr. J. A. Groves, the secretary of the mill, originated the idea of bungalows and made a study of various plans and their cost. After figuring considerably he decided to venture into a new field, and a force of hands were employed and Mr. Groves gave general supervision to the building of the new homes, which were completed at a cost a little in excess of the contractors' price for the old-style cottage. In grading the streets a large quantity of rock was obtained, and this was utilized in making the foundation work and fancy rock decoration, which also helped as an expense saver.

The contractor's price did not include painting and electrical fixtures, but the bungalows were completed with everything for a small amount over the bid. and were the figures given as an average cost for building each room it would evidently place some of the real estate men in an embarrassing position and cause the mill company to be flooded with petitions to enter the home-building business.

Mr. J. W. Cannon, the president of the Wiscasset mill, has other mill interests throughout the South. In fact, he is the head of a chain of mills known as the

largest towel manufacturers in the world. Kannapolis, a bustling mill town of between 4000 and 5000 people, is of his building, and at this place he has done a creditable work to make the living condition of his people pleasant, but it is very likely that the step that his mill has taken in making such an improvement in homes will attract more attention than his other work. A newspaper notice some time ago stated that a contract had been given to build several bungalows in Kannapolis.

Probably some will say that the Wiscasset mill has stepped too far ahead. To build such homes generally would no doubt be unwise, but if one were to visit Bungalow Hill and see the flowers those people have planted, the excellent care they take of their premises and watch the happy expression on their faces when they talk of their new homes there would be no doubt about it being a wise step to build them nor any fear that they were ahead of the people. In selecting occupants for the bungalows the families who had taken the most care of their premises and were steady and progressive were honored with a new home.

All of the cottages at the Wiscasset mill, both in the old portion and on Bungalow Hill, are equipped with electric lights, and filtered water is supplied to each cottage by a self-closing spigot in the yard. The streets are all well lighted with the modern street-lighting system.

For some time the Wiscasset mill had the best graded school in Albemarle, but a short time ago a new school was built in the city that marks a progressive step. The mill school is a comfortable and attractive brick building, equipped with all modern conveniences, and is ahead of many schools in the amount of land devoted to playgrounds. Just in front of the school a lot of three or more acres has been turned over to the school, and plans are being made to equip modern playgrounds on this plot. There is a handsome brick church in this village which any town would be proud to claim, and in it the spirit of the people to want the best of things is strongly shown.

There are no criticisms to make of the sanitary conditions in and around the Wiscasset mill, as the mill is one of the cleanest to be found anywhere and the village is neat, but a nurse has been employed to look after the sick, promote health and assist in every way possible to prevent the spread of disease. It will be one of her duties to examine the school children and see that they are cared for and protected from a health standpoint.

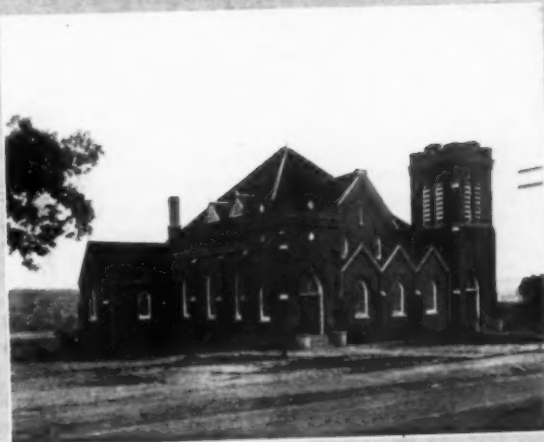
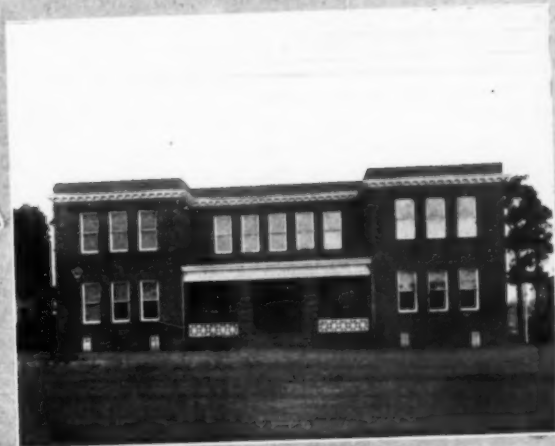
Bungalow Hill being situated in a grove, it is impossible for the people to have gardens around their homes, and on this account a tract of cultivable land near the place has been turned over to the occupants of this suburb for garden space.

Municipal Improvement Society to Meet in Dayton, O.

The twenty-second annual convention of the American Society of Municipal Improvements will be held in Dayton, O., October 11 to 15. This is one of the most important organizations having to do with municipal matters, and it brings together each year leading officials in charge of public improvement work from all parts of the country.

The convention will cover in its scope all matters relating to public health, comfort and convenience. The papers to be delivered deal with garbage disposal, water supply, sewerage, street improvements and various materials for constructing same, flood prevention, street cleaning and traffic matters. The papers on these different topics will be prepared by officials who have had in their charge special work on each particular subject, thus giving the members of the association the advantage of their investigations and work and outlining the latest ideas in all kinds of municipal improvement.

The Live Oak Citizens' Bank of Live Oak, Fla., took possession of its new building on October 4. It is a handsome and commodious structure of brick and concrete.



TYPICAL COTTON-MILL OPERATIVES' BUNGALOWS OF WISCASSETT MILL, ALBEMARLE, N. C. MILL SCHOOL IN CENTER AND CHURCH BELOW IT.

News and Views from Our Readers

Florida's Great Prosperity Based on Diversification.

J. E. INGRAHAM, Vice-President Florida East Coast Railway, St. Augustine, Fla.

The reason why the business outlook is brighter for Florida than any other States in the South is because of the diversified products raised in Florida as against Southern States whose staple crop is cotton. The early vegetable crops, the citrus fruits, Irish potatoes, hay and grain, in addition to cotton and tobacco, raised in Florida will shortly be increased.

An industry is now rapidly developing in the breeding of high-grade cattle, hogs and sheep; daily large acreages are being fenced in for cattle ranges. The cattlemen of the West are becoming largely interested in cattle raising in Florida; they are buying up large tracts of land, fencing them in and stocking the ranges with cattle, which they are improving with blooded stock.

This season's outlook for Florida is more than bright, and those who have taken the turn of the tide at the proper moment are the ones who will reap the harvest awaiting them.

The outlook for the citrus industry for this season is extremely good. Buyers are in the market buying up the orange and grapefruit crops at prices which appear tempting to the grower and which show a profit which many of them are taking, the general terms being for fruit upon the trees. The early vegetable growers are all looking to a good season for their crops, because of the improvement of trade in the North and the larger number of laborers employed.

Although the industry is not developed to any great extent, breeders of hogs are already obtaining good prices for their surplus stock, the blooded stock being in demand by those who wish to improve their native stock.

There are strong indications of a very bright and busy season for the landowners, as the number of inquiries for farming lands are coming in large numbers, and we are advised of several carloads of homeseekers who will be on their way to Florida in early October and November. The travel of homeseekers has already begun, and sales are being made to those who have personally investigated the State and have satisfied themselves that there is only one Florida, the State which is within 30 hours' run of New York and about the same to Chicago, the leading markets of the United States. Cattle, sheep, hay and grain crops are the coming money crops of Florida.

To those who are contemplating a change of location, let their slogan be, "go South, young man," and let that South be the State of prosperity, Florida. The West has had its day, as is being demonstrated by the fathers who made their fortunes in the West investing a considerable portion of it in Florida lands for the purpose of establishing their sons in the cattle business in Florida.

In traveling through the State one is impressed by the number of new dwellings being built, the old ones being improved, new lands being fenced in and improved, the general impression given being that the owners are keeping up with the times and its progress. Especially is one impressed with the great improvements in good, hard-surfaced roads, the many miles of good brick roads encountered throughout the State of Florida. The central and especially the east part of the State shows an impressive progress.

Effective Way to Overcome Potash Shortage.

CHARLES CATLETT, Chemist and Geologist, Staunton, Virginia.

Your interesting discussion in the issue of September 30 in regard to the shortage of potash for fertilizing purposes refers to, but fails to emphasize, what I believe is the most effective way of overcoming this shortage.

Ordinary soil contains an enormous amount of potash in an insoluble form—the word insoluble used to mean insoluble in water. It is fortunate this is true, for if these vast stores of potash were soluble they would long since have been lost. But while they are insoluble in water, there is no question that under the influence of growing

vegetation this potash is to a certain extent made available, even if not so rapidly as to give the best results. It is customary, therefore, to supplement annually this potash in the soil by additional amounts of potash in a readily available form.

Ordinary clay soil will carry as much as from 20,000 to 30,000 pounds of potash per acre in the first six inches. A large crop of wheat would only take some 65 pounds of potash per acre from the soil, and if the straw were returned to the soil by feeding on the land the amount actually permanently removed would be very much less.

A consideration of these figures will show an enormous excess of potash in the soil, and points out if we can make but a small proportion of it available each year there is no danger of suffering any serious lack.

It is fortunate that the very treatment which under common circumstances is most beneficial for the soil for other reasons, at the same time makes available the potash which is in the soil and adds an appreciable amount of new potash in a soluble form.

This is accomplished by the addition of lime in suitable quantities in the caustic form, either ground or hydrated.

There seems to be no difference of opinion among agricultural chemists that lime has the power of liberating or making more available a portion of the potash which is in the soil. In addition to its great value as an ameliorator of the physical condition of the soil and as a sweetener of the soil by counteracting acidity (and thus permitting the successful growth of those plants which are of the greatest value in fixing nitrogen from the air), it also aids in making potash available. But there is another function which I do not happen to have seen emphasized.

All limestones contain some potash. And, in fact, there are recorded some of the impure limestones carrying from 2½ per cent. to nearly 5 per cent. of the alkalis. It is not uncommon to find as much as 1½ per cent. of potash in a limestone. When this limestone is burned the silicate containing the potash is decomposed and the potash made available. A portion is probably volatilized, but I would say it is well within the range of probability that many of the limes used for agricultural purposes carry in a readily available form 1 to 1½ per cent. of potash. If this lime is used in the form of quicklime to the extent of, say, from 800 to 1000 pounds per acre (and relatively more if the hydrate form is used), we would get the addition of from 8 to 10 pounds per acre of readily available potash in addition to the action of the lime on the potash which is already in the soil. A standard fertilizer carrying 2 per cent. of potash would only be used to the extent of 200 to 400 pounds per acre. So that a proper application of burnt or hydrate lime during the coming year would probably supply fully as much potash as would be furnished by one application of commercial fertilizer, in addition to all of its other valuable qualities.

There is probably no link in the chain of agricultural development in the South which is of more importance than the extension of the intelligent use of lime.

War-Created Opportunities for New Industries. Basket Machinery Wanted.

HARRY W. SMITH, Pablo Beach, Fla.

As a constant reader of your valuable paper I am writing you in the hope of obtaining some information regarding manufacturers of basket machinery. I have searched your advertising pages through time and again, but have never found any reference to same. We want machinery for manufacturing small fancy fiber baskets for decorative purposes. The greater amount of these baskets have formerly been made in Germany, and at present the supply is practically cut off. We have unlimited quantities of practically the same material they use, and with the proper machinery believe we could make it a paying business. Any information you can give me on this subject will be greatly appreciated.

Large Crops and Good Prices as Basis of Broad Business Activities.

L. M. ALLEN, Passenger Traffic Manager Rock Island Lines, Chicago, Ill.

Information from representatives in 14 States served by Rock Island Lines indicates a strong upturn in business conditions, due to good crops.

With the largest wheat yield ever produced by the United States, of which our territory has more than half, and prospects for at least normal crops of corn and cotton, unusual crop of oats and fair yields of Kafir corn and other fodder crops, the outlook cannot be otherwise than favorable for all lines of business.

Corn is made in the southern portion of our territory, and the warm weather of past two weeks is fast maturing the crop in the northern section. Light frosts have done absolutely no damage. The States of Arkansas, Oklahoma, Texas and Louisiana show an enormous increase in corn and other grains over normal years, without great decrease in the total cotton yield.

Rice, another important staple in Arkansas, Texas and Oklahoma, is yielding well. Excessive moisture in some sections of the grain belt retards thrashing, but is more than offset by favorable conditions elsewhere. Pastures have never been better at this season, causing cattle feeding and dairying to flourish.

The individual prosperity of farmers is indicated by the exceptionally high yields of grain. Oklahoma has many examples of 80 bushels of corn per acre. Kansas wheat made over 40 bushels on many farms, and oats as high as 85 and 90 bushels. Good prices are being received for all grains and feeds. Farmers in our territory are storing surplus in silos for winter feeding.

The entire Southwest is preparing for a season of business prosperity based on agricultural production and the great demand for foodstuffs in this country and abroad.

Improvement in Virginia Agricultural Conditions.

FRANK M. BUNCH, Secretary Charlottesville Chamber of Commerce.

According to the Government crop report issued September 15, showing conditions and estimates as of September 1, the State of Virginia will come nearer feeding itself than for many years past.

It is gratifying to know that Virginia is one of only seven States showing a condition of better than 110 on a composite of all crops, 100 representing the 10-year average condition on September 1. North Dakota leads, with 128.5, followed by Oklahoma, with 126.1; Kansas, 124.5; South Dakota, 122.1; Nebraska, 120; West Virginia, 113.7, and Virginia, 111.5.

The following comparative figures will show what the farmers in this State have done the past and this year.

	1915.	1914.	Increase.
Wheat, bushels....	16,674,000	11,296,000	5,378,000
Corn, bushels.....	62,558,000	39,380,000	23,178,000
Oats, bushels.....	4,622,000	2,960,000	1,662,000
Hay, tons.....	772,000	468,000	304,000

On the basis of a fair valuation for wheat, oats and hay since harvest, and allowing 20 cents per bushel discount for the 1915 crop of corn under what the 1914 crop is bringing now, the above increases represent over \$30,000,000 to the Virginia producer, and means that Virginia is about through contributing to the Western farmer for feed.

Consumers of corn in this State pay a penalty of from 20 cents to 25 cents per bushel over and above what the Illinois or Iowa farmer receives, and still the average valuation of farm lands in those States is \$200 per acre, as compared to \$50 and under for a good portion of the Virginia lands on which the above crops have been and are being raised.

The showing this year reflects improved farming conditions, and there is no reason to doubt, but what the year 1916 will surpass 1915 in crop yields, which must ultimately result in an equalization of values between

the lands of the West and Middle West and those of Virginia, and an advance in the latter is much more likely than a decline in the former.

New Orleans Never Dismayed by Disaster.

MARTIN BEHRMAN, Mayor of New Orleans, La.

The storm that struck New Orleans on the 29th was one of the greatest that ever visited this section of the country. However, we are meeting the situation cheerfully, and while the property loss was heavy, very few lives were lost in the city of New Orleans. The people of New Orleans have had to face many disasters in the past, but the wonderful development in the past 10 years shows what pluck and energy will do, and this situation is being met with that same spirit.

South on the Eve of Great Prosperity.

ROBT. F. MADDOX, Vice-President the American National Bank of Atlanta, Atlanta, Ga.

The recent rise in the price of cotton has stimulated business in every line in this section. Cotton is bringing 12 cents in Atlanta today, and I believe that the South is on the eve of an era of great prosperity. She has learned to economize and to produce more food crops. Both lessons have been hard to learn, and they are sure to have much influence on the future of the South.

Well Pleased With New Orleans Story.

A. M. LOCKETT, President A. M. Lockett & Co., Ltd., New Orleans, La.

I have read with much interest your article describing the extensive development work under way at this port, and consider that all New Orleans people are under many obligations to you for this liberal space.

Impressed by Comprehensive Grasp of Facts an Article Showed.

W. E. DUNWODY, President Standard Brick Co., Macon, Ga.

Your open letter to the Steel Corporation et al. shows a wonderful and comprehensive grasp of the actual facts far beyond that of anyone else I have ever read of.

Worth Many Times Its Cost.

C. H. THOMPSON, Vice-President and General Manager Darby Coal Mining Co., Darbyville, Va.

Please find check for \$4 for subscription for 1915-1916. The paper is worth many times its cost, and you may be sure you have one appreciative reader in the writer.

Swelling the Song of Optimism.

[Special Dispatch to Manufacturers Record.]

CRADDOCK-TERRY COMPANY, Lynchburg, Va.

Add to the South's song of optimism a verse recording the fact that we shipped more than three quarters of a million dollars' worth of shoes into the South in September, showing a gain of nearly 50 per cent. over the corresponding month last year.

Organizing to Mine Tennessee Phosphate.

A thousand-acre tract of phosphate lands at Centerville, Tenn., will be developed by the Bone Phosphate Co., and it is proposed to install machinery for a daily capacity of 200 tons. S. M. Ward, 2101 W. Church street, Nashville, will organize the company, and is negotiating for the mechanical equipment.

Atlanta Moving to Secure Navigation on the Chattahoochee.

Atlanta, Ga., October 1—[Special].—Atlanta is again seriously considering the possibility of securing water transportation to the coast, thus securing competitive freight rates to and from Atlanta. As the leading inland distributing point in the Southeast, the advantage of such facilities is obvious.

The Atlanta Chamber of Commerce will at an early date hold an open meeting, in which it is expected every trade organization in Atlanta will participate, and at which time a plan for promoting this project will be outlined. Frequently within the last few years and in recent months has this matter been considered by the Chamber of Commerce, and consultations have been held with Major Earl I. Brown of the United States Engineering Corps.

The matter came to a sudden head this week, when Percival M. Churchill, a consulting engineer of Boston and also a member of the United States Engineering Corps, arrived in the city. After he had finished his investigation of the possibilities of making the Chattahoochee River navigable from Appalachicola, Fla., to Columbus, he laid before the city and Chamber of Commerce officials his plans for making the river navigable from Columbus to Atlanta. Mr. Churchill is confident that such a plan is feasible, and is anxious for the people of this section to start a movement to have the Federal Government make a report. It is probable that at the general meeting the Congressional Representatives from this section will be called on to make the effort to secure an appropriation for this survey.

In making the river navigable as far inland as Columbus and to secure a guaranteed low depth the year 'round, basins and reservoirs would have to be constructed as far north as Atlanta, and it was out of this possibility that the plan to make it navigable this far was evolved. Still another possibility is pointed out in the construction of a series of locks and dams, which would not only facilitate navigation, but would develop a large amount of hydro-electric power to be used by the manufacturing plants between here and Columbus.

New Texas Sulphur Deposits to Be Developed.

That additional sulphur deposits will be developed in Texas is outlined in a statement by Judge T. R. Owen in a recent issue of the Van Horn Advocate, Van Horn, Tex. This statement is as follows:

"I have recently surveyed 23 mining claims covering sulphur deposits for Geo. A. Plummer of Port Arthur and his associates, and in surveying these claims I was compelled to walk over a large area of the sulphur deposits which cover a large portion of the northeastern part of Culberson county. From what can be seen of the outcrops of these sulphur deposits, and exposures of the ore made by shallow prospect work, it looked as though the market of the world could be glutted from these fields, especially if they are worked by the process now being used in Louisiana. Mr. Plummer expects to install such a plant as the Louisiana Sulphur Co. is now using, which will cost about \$370,000, on the claims he has recently located, and when this plant is fully equipped and put in commission it will produce from 100 to 500 tons of pure sulphur per day. The Louisiana company is now extracting sulphur from a depth of 1000 feet below the surface. The deposits here are so rich, practically on the surface, that Mr. Plummer thinks it will not be necessary for him to sink his steam and discharge pipes deeper than 50 or 100 feet to produce sulphur enough to supply the market of the United States."

Diversified Industries the Basis of Anniston's Prosperity.

Anniston, Ala., October 2—[Special].—Although business prospects are looking brighter than ever to Anniston, it has not been worried nor stagnant within the last 14 months, and has made an excellent record for general business during that period. All of the many diversified manufacturing plants have been running regularly, and in most cases at full time.

J. B. Carrington, president of the Chamber of Commerce and a prominent business man, is the leading

exponent of Anniston's prosperity. Mr. Carrington states that back in 1906 and 1907 Anniston depended and basked in the sunshine glow of the \$90,000 that was paid out here each month by two of its chief industries—the car works and the rolling mill. When these two plants closed their doors following the general depression and panic of 1907 it was thought that the business heart of Anniston had been removed.

That Anniston has survived and builded even better is indicated in the fact that in August, 1907, the total deposits in the three banks were \$1,770,000. Today they are approximately \$2,124,000, or an increase of \$354,000 over the deposits of the so-called "good times."

This healthy state of affairs is due to the fact that Anniston realized that it was not best for a whole community to depend on one or two large industries. Diversification has been the watchword in establishing the various plants, and the wisdom of such a policy is shown in the fact that business has held up to normal despite abnormal external affairs, and the general wealth of the community increased.

Anniston has 7 soil-pipe plants, 8 cotton mills, 2 furnaces, 1 car plant, 1 locomotive works, 3 woodworking plants, 1 roofing manufacturing plant, 2 railroad repair shops, 2 sashweight foundries, 20 passenger trains per day, 3 cotton warehouses and 1 compress handling 60,000 bales per year, and melts 650 tons of pig-iron per day.

Industrial Activities South.

During September the Construction Department of the MANUFACTURERS RECORD published 5055 items relating to industrial developments, railroad, financial and building operations, and general business interests of the South and Southwest. During the first eight months of the year 37,483 items were published, and, under appropriate headings, these have been previously summarized in monthly statements. Those for September are detailed in the accompanying table. The total number of items for the nine months is 42,538.

The table for September follows.

Industrial and Developmental.

Bridges, Culverts, Viaducts.....	87
Canning and Packing Plants.....	14
Clayworking Plants.....	11
Coal Mines and Coke Ovens.....	47
Concrete and Cement Plants.....	8
Cotton Compresses and Gins.....	39
Cottonseed Oil Mills.....	9
Drainage Systems.....	28
Electric Plants.....	84
Fertilizer Factories.....	15
Flour, Feed and Meal Mills.....	48
Foundry and Machine Plants.....	34
Gas and Oil Enterprises.....	96
Ice and Cold-Storage Plants.....	34
Iron and Steel Plants.....	13
Irrigation Systems.....	4
Land Developments.....	29
Lumber Manufacturing.....	60
Metal-Working Plants.....	10
Mining.....	89
Miscellaneous Construction.....	74
Miscellaneous Enterprises.....	96
Miscellaneous Factories.....	200
Motors and Garages.....	70
Railway Shops, Terminals, Roundhouses, etc.....	10
Road and Street Work.....	314
Sewer Construction.....	55
Telephone Systems.....	20
Textile Mills.....	46
Water-Power Developments.....	14
Water-Works.....	76
Woodworking Plants.....	30

Buildings.

Apartment-Houses.....	94
Association and Fraternal.....	31
Bank and Office.....	64
Churches.....	106
City and County.....	68
Courthouses.....	22
Dwellings.....	494
Government and State.....	53
Hospitals, Sanitariums, etc.....	38
Hotels.....	45
Miscellaneous.....	69
Railway Stations, Sheds, etc.....	23
Schools.....	206
Stores.....	214
Theaters.....	35
Warehouses.....	78

Railroad Construction.

Railways.....	108
Street Railways.....	11

Financial.

Corporations.....	90
New Securities.....	470
	4,184
Fire Damage, etc.....	191
Machinery, Proposals and Supplies Wanted.....	690
Total for September.....	5,065
Previously detailed since January 1.....	37,483
Total for nine months.....	42,538

Constructing Self-Propelled Barges for Inland Waterway Commerce

In the furtherance of his plans to develop inland waterway commerce in this country along lines which have brought an enormous water-borne tonnage to the rivers and even small streams of Europe, particularly Holland, Germany, England and France, John H. Bernhard, president Inland Navigation Co., writes from the New York office of the company:

"I have recently succeeded in organizing the Inland Navigation Co., capitalized at \$9,000,000, and incorporated under the State laws of Delaware on June 3.

"This company contemplates the construction and operation of 36 self-propelled, shallow draft, all-steel barges. Its first barge is now nearing completion at the Howard shipyards at Jeffersonville, Ind., and is constructed under the supervision of the American Bureau of Shipping.

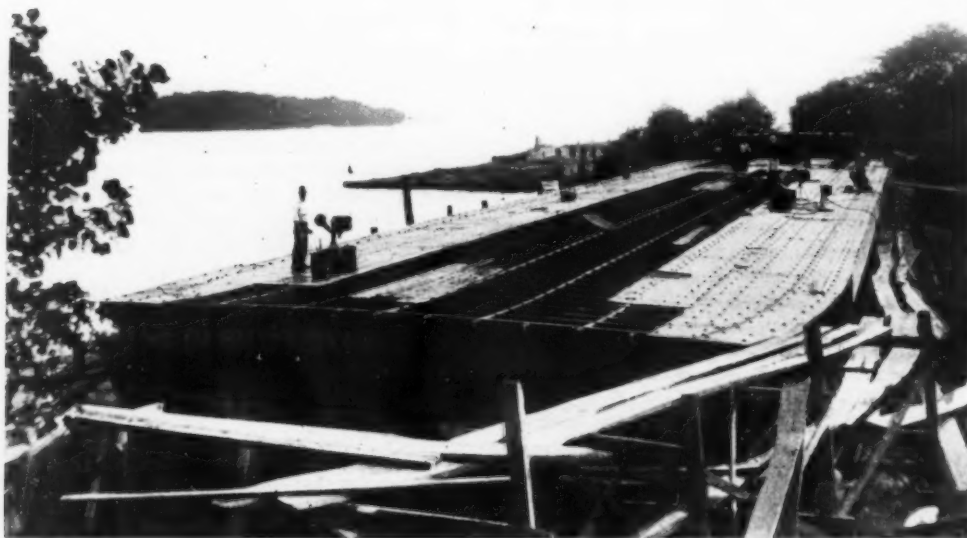
"The barge is all steel and the hold is divided into five compartments by means of four water-tight bulkheads, and is propelled by four internal combustion fuel

John H. Bernhard, a rather remarkable boat for freight-ing on the waters of the Mississippi and Ohio rivers. This boat, or barge, will cost about \$70,000, and is to be used especially for freight and will have cabin accommodations for the officers and crew only. It is built entirely of steel, both main and superstructure, and it is claimed will be fireproof and unsinkable.

"The boat will be equipped with four sets of modern gas engines, each to be of 90 horse-power, and each set of engines to be independent and controlled as a separate unit. By this means, when the boat is going with the river current one or more of the engines can be used as conditions require. When going against the current, two or more may be required, as the load of the boat demands.

"It is to be equipped with all modern electrical equipments to handle the freight in the way of electric cranes, winches, capstans, etc.

"Lifeboats and yawls, with their own propelling



STEEL BARGE UNDER CONSTRUCTION AT HOWARD SHIPYARDS FOR THE INLAND NAVIGATION CO. PHOTOGRAPH TAKEN SEPTEMBER 13.

oil four-cycle three-cylinder engines, built by Fairbanks, Morse & Co., each operating one propeller. The barge can draw as little as 3½ feet and then carry 500 tons, and at its maximum draft of seven feet it can carry 1600 tons.

"The barge is 240 feet long 43 feet wide over all. It has a steel waterproof cargo box and an electric traveling crane capable of extending a boom outward for a distance of 70 feet and then lift one ton. It is further equipped with duplicate electric-power plant, and has absolutely no fire on board, the heating and cooking being done by electricity. It is also equipped with a large number of electric lights and three powerful searchlights, giving a total of 18,000 candle-power, the largest being one of 9000 candle-power, all pilot-house control.

"The bow and stern each are provided with four horse-power electric winches; the steering is done by electricity; the pilot-house is completely equipped with all modern appliances, mechanical telegraph, house telephone and spider telephone system, and a navigation telephone system, and in addition a complete wireless outfit. Two five-inch centrifugal pumps, electrically operated, can quickly drain the barge and the ballast tanks.

"The barge is further equipped with two refrigerating plants, one for the crew and one for the cargo, capable of maintaining a temperature of 35 degrees for a cargo of 60,000 cubic feet. The cargo space is covered by a waterproof steel cargo box."

Asked for a description of the boat under construction, President Edward J. Howard of the Howard Shipyards Co. writes:

"There is now being built at the Howard Shipyards Co., Jeffersonville, Ind., for the Inland Navigation Co. of New York, under the immediate supervision of Mr.

power, will be carried on the roof and kept constantly in commission for all emergencies, and, together with other life-saving apparatus, to fill the Government laws, will be fully equipped for any emergency that may occur.

"The boat will be equipped with a radio telephone and wireless telegraph, which will put them in communication with the principal shipping points at all times.

"All communications and orders from the captain of the boat will be by telephone, thus securing prompt action and avoiding mistakes.

"The quarters for the officers and crew will be of the latest sanitary design, with all necessary rooms, toilets, etc., to insure good healthy quarters in every respect.

"The boat is built especially for the river traffic on the Mississippi and Ohio rivers, and has ample stowage for light as well as heavy material. It is to be 240 feet long, 43 feet beam and 8 feet hold in the center, with 30-inch rise, or shear, for and aft. It is calculated to carry 1400 tons miscellaneous freight on 5½ feet draft of water.

"We have every reason to believe that this boat will be a success in every particular, and should make money for both owners and shippers. There is abundant capital behind the venture to push it to a paying investment. This venture is so financed that it is able to compete with anything that floats or runs on wheels.

"In the near future a solicitor will call on the merchants and shippers along the two rivers, the Mississippi and Ohio, to give this enterprise support in the way of freight and other encouragement.

"This boat will be able, under almost any condition, to deliver freight along the river much more rapidly than the railroads could possibly do. With a system of terminal warehouses which will be constructed along the riverfront, the freight will be handled rapidly and will be housed and cared for."

A BIG BOOST FOR THE SYCAMORE.

The Largest of Broad Leaf Trees and the Best for City Planting, so Government Foresters Declare.

That the largest shade tree in the United States, as brought to light by the prize contest held by the American Genetic Association, should turn out to be the Eastern sycamore is not surprising, in the opinion of Government foresters, says a recent report of the Forest Service. The sycamore has long been regarded as the largest deciduous tree in North America, and its range of growth is hardly second to that of any other broad-leaf tree; for it can be found from Maine to Florida, and as far west as Kansas.

The bestowal of the prize on a sycamore at Worthington, Ind., which is 42 feet 3 inches in circumference and 150 feet tall, draws attention to the fact that foresters are nowadays especially recommending the species for city planting. They say that long experience with sycamores planted in city streets has shown that the species is peculiarly able to withstand the smoke, dust and gases which are usually an unavoidable complement of urban life. In addition, the sycamore is as resistant to attacks of insects and fungi as almost any species, and is a quick grower. At 10 years of age a healthy sycamore usually is already large enough for shade as well as for decorative purposes. As for the latter, there is hardly any Eastern tree which is generally held as picturesque as the sycamore. With its strikingly mottled bark and magnificent stature and conformation the sycamore has a marked individuality and cannot be mistaken for any other species, either in the summer, when the foliage conceals its structural form, or in the winter, when the leaves are absent.

A common objection to the sycamore as a lawn tree is its habit of dropping its leaves before autumn. From this characteristic it is sometimes called a "dirty tree." Recently the Forest Service received a letter from a suburban resident who has a sycamore on his lawn. "My sycamore tree is very beautiful," said the writer, "until about the first of August, when its leaves begin to fall. Is there any remedy that I can apply to the tree to keep it from dropping its leaves so soon?" It was necessary to tell the correspondent that this was a characteristic habit of the tree. This drawback, however, is practically the only failing that the sycamore has, and it is offset by many desirable qualities.

Foresters say that the chestnut and the black walnut are the largest nut-bearing trees in this country, and the contest did, in fact, unearth a chestnut near Crestmont, N. C., which is 33 feet 4 inches in circumference and about 75 feet tall.

The contest brought forth photographs and authentic descriptions of 337 trees in all parts of the United States, making a distinctly valuable contribution to existing knowledge of native trees. It was found that, in all probability, there is no living elm larger than "The Great Elm" at Wethersfield, Conn., which is 28 feet in circumference and about 100 feet tall, and is estimated to be 250 years old. Many remarkable specimens of species which ordinarily attain only small sizes were unearthed by the contest, furnishing new records of maximum growth. A sassafras was brought to light at Horsham, Pa., which is 15 feet 10 inches in circumference at four feet from the ground, whereas, for example, not long before this a Georgia town claimed that it had the largest sassafras tree in the world, though this tree was only something over seven feet in circumference. A white birch was found in Massachusetts with a girth of 12 feet 2 inches; a pecan was found in Louisiana with a circumference of 19 feet 6 inches, and a catalpa in Arkansas with a girth of 16 feet. The tallest tree found is a yellow poplar in North Carolina, which is 198 feet high and has a circumference of 34 feet 6 inches.

The value of the contest lies in its contribution of new information as to the maximum growth attained by deciduous species and the localities in which the different species seem to grow best. The relative sizes of the coniferous species are fairly well established, the Bigtree of California, for example, being the largest in the world; but information on the size attained by deciduous trees in this country has been very incomplete.

South to Hold Its First Textile Exhibit

LEADING COTTON MILL MACHINERY, EQUIPMENT AND SUPPLY HOUSES TO DISPLAY THEIR PRODUCTS AT GREENVILLE, S. C., NOVEMBER 2-6.

For the first time there is to be held in the South, in the heart of the cotton-mill industry, a big, comprehensive textile exposition, at which will be shown exhibits of machinery and mill supplies, cotton fabrics and finished products and college and United States Government exhibits. This important display will be held in Greenville, S. C., on November 2 to 6, under the auspices of the Southern Textile Association.

For many years efforts have been made by various Southern cotton-mill interests to have a big exhibit of this kind held in some appropriate place in the South. The managers of the annual Boston exhibit were approached with a request to hold one of their shows in the South. Although these efforts extended over a number of years, none of them met with success, so some of the aggressive members of the Southern Textile Association, after a thorough discussion of the matter, determined to have a representative exhibit in the South.

At a meeting of the association in Birmingham in 1914 the matter was definitely decided upon, and Greenville was selected in view of its location in relation to the Southern cotton-mill industry as the place where the exhibit should be held, in connection with the meeting of the association.

An executive committee was appointed to handle the exposition, and the aggressive manner in which they have conducted their work will be manifested in the complete and extensive display which has been arranged. The members of this committee are:

Robert F. Bowe, chairman; A. B. Carter, secretary; Edwin Howard, treasurer; David Kohn, J. H. Spencer, J. E. Sirrine, G. G. Slaughter, Milton G. Smith, Jas. H. Maxwell.

Splendid exhibit quarters were obtained, and so quickly did applications for space come in that additional facilities had to be provided. Those reserving space include the representative firms of the country, making all of the varied equipment, supplies and materials entering into the design, construction and operation of the cotton textile mills, thus affording Southern mill owners and their managers an opportunity to view at first hand the progress and improvements that have taken place and learn many lessons that will prove helpful to them in the conduct of their plans.

The exposition will display the exhibits in four departments:

- A—Exhibits of machinery and mill supplies.
- B—Exhibits of cotton fabrics and finished products.
- C—Exhibits from textile colleges and welfare departments.
- D—Government exhibits of South American fabrics.

No better location than Greenville could have been selected for an exhibition of this kind. Not only is Greenville itself an important cotton-mill city, but it is located in the very heart of the Southern textile section. Within a radius of 40 miles there are mills having a total of 2,500,000 spindles, within 100 miles 7,000,000 spindles and within 240 miles 9,600,000 spindles. Considering that there are in the whole South, from Maryland to Texas, approximately 13,500,000 spindles, it is readily seen that the Greenville exposition will be within an easy reach of a large majority of the Southern cotton mills and will allow the owners and managers to attend the meeting with but little loss of time. Indications therefore point to an unusually large attendance, and complete arrangements have been made to comfortably take care of everyone attending.

During the exposition week special days have been provided and dedicated to varied textile interests. November 2, the first day, will be Presidents' and Treasurers' Day; November 3, College and Welfare Day, and November 4, 5 and 6, Southern Textile Association Days, during which time its regular meeting will be held. This association has a membership of about 1500, and the majority of the members will be in attendance.

President Scott Maxwell of the board of governors of the American Cotton Manufacturers' Association has called a meeting of the board in Greenville on November 2, thus giving added prestige to the importance of this week.

Some idea of the broad scope of the exhibits and how they cover every branch of the textile trade can be ob-

tained from a study of the list of following firms that will have booths at the exposition:

Warren Webster & Co., Camden, N. J.
Yarnall-Waring Company, Philadelphia, Pa.
Charlotte Manufacturing Co., Charlotte, N. C.
Reeves Pulley Co., Columbus, Ind.
H. W. Butterworth & Sons Co., Philadelphia, Pa.
Stafford Company, Readville, Mass.
General Electric Co., Schenectady, N. Y.
New York & New Jersey Lubricant Co., New York, N. Y.
The Texas Company, Greenville, S. C.
Textile Manufacturers Journal, New York, N. Y.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Guion Starch Co., Greenville, S. C.
Acme Loom, Harness & Reed Co., Greenville, S. C.
The J. H. Williams Company, Inc., Millbury, Mass.
The Babcock & Wilcox Company, New York, N. Y.
Leslie's Loom, Reed & Harness Co., Charlotte, N. C.
American Wool and Cotton Reporter, Boston, Mass.
Emmons Loom Harness Co., Lawrence, Mass.
Charles Lewinson, 72 Leonard street, New York, N. Y.
F. S. Bordin & Shuttle Co., Providence, R. I.
Textile Exhibitors Association, Inc., Boston, Mass.
Mill News Printing Co., Charlotte, N. C.
Westinghouse Electric & Manufacturing Co., Charlotte, North Carolina.
Howard Bros. Manufacturing Co., Worcester, Mass.
Mason Machine Works, Boston, Mass.
Southern Power Co., Charlotte, N. C.
National Starch Co., Greenville, S. C.
Cotton Publishing Co., Atlanta, Ga.
The Kever Starch Co., Columbus, O.
J. E. Sirrine, Greenville, S. C.
Victor Shaw Ring Traveler Co., Providence, R. I.
Universal Winding Co., Boston, Mass.
U. S. Gutta Percha Paint Co., Providence, R. I.
Keefer Bros. Co., No. 28 Market street, Newark, N. J.
E. H. Jacobs Manufacturing Co., Danielson, Conn.
L. R. Wattles & Co., Greenville, S. C.
Stoddard Heddle Manufacturing Co., Philadelphia, Pa.
A. Kleinstein & Co., Charlotte, N. C.
National Starch Co., Greenville, S. C.
Barber-Colman Company, Rockford, Ill.
Draper Company, Hopedale, Mass.
Greenville Loom, Reed & Harness Co., Greenville, S. C.
Manufacturers Record, Baltimore, Md.
P. C. Mink, Greenville, S. C.
Pur-Sanitary Drinking Fountain Co., Haydenville, Mass.
Bird, Wilcox & Co., Inc., Atlanta, Ga.
J. A. Piper Roofing Co., Inc., Greenville, S. C.
Sanitary Engineering Co., Charlotte, N. C.
Thomas Leyland & Co., Readville, Mass.
Western Electric Co., Atlanta, Ga.
McNaughton Grate Bar Co., Maryville, Tenn.
Walsh & Houston Mill Sewing Machine Co., Lawrence, Massachusetts.
Normalair Company, Winston Salem, N. C.
Emmie Manufacturing Co., Goldsboro, N. C.
W. C. Robinson & Son Co., Baltimore, Md.
The Mossberg Wrench Co., Central Falls, R. I.
Smith, Drum & Co., Philadelphia, Pa.
Norris Bros., Greenville, S. C.
Burroughs Adding Machine Co., Greenville, S. C.
American Kron Scale Co., New York, N. Y.
Poe Hardware & Supply Co., Greenville, S. C.
Clippert Surface Company, Buffalo, N. Y.
Southern Novelty Co., Hartford, S. C.
Dixie Packing Co., Atlanta, Ga.
Keystone Lubricating Co., Savannah, Ga.
Addressograph Company, Atlanta, Ga.
Felt & Tarrant Manufacturing Co., Chicago, Ill.
Keystone Lubricating Co., Savannah, Ga.
Joseph Dixon Crucible Co., Atlanta, Ga.
International Acheson Graphite Co., Niagara Falls, N. Y.
Clippert Belt Lacer Co., Grand Rapids, Mich.
Carolina Supply Co., Greenville, S. C.
D. D. Felton Brush Co., Atlanta, Ga.
Connecticut Mill Supply Co., Woodbury, Conn.
Ashworth Bros., Inc., Fall River, Mass.
Keystone Fibre Co., Yorklyn, Del.
Aberfoyle Manufacturing Co., Chester, Pa.
The Lunkenheimer Company, Cincinnati, O.
The American Pulley Co., Philadelphia, Pa.
Murphy Iron Works, Detroit, Mich.
Mill Life, Greenville, S. C.
Westminster Shuttle Works, Westminster, S. C.
The Graton & Knight Manufacturing Co., Atlanta, Ga.
Leatheroid Manufacturing Co., Boston, Mass.
Dixie Seal & Stamp Co., Atlanta, Ga.
The Searchlight Co., Chicago, Ill.
Joseph Sykes' Bros., Charlotte, N. C.
Spray Engineering Co., Boston, Mass.
The G. M. Parks Company, Fitchburg, Mass.
Clippert Steam Turbine Co., Hartford, Conn.
Jenkins Bros., New York, N. Y.
The Goulds Manufacturing Co., Atlanta, Ga.
Lombard Iron Works & Supply Co., Augusta, Ga.
Curtis & Marble Machine Co., Worcester, Mass.
General Fire Extinguisher Co., Charlotte, N. C.
American Machine & Manufacturing Co., Greenville, S. C.
Saco-Lowell Shops, Boston, Mass.
Lord & Nagle Company, Boston, Mass.
Clippert Ring Traveler Co., Providence, R. I.
Peace Printing Co., Greenville, S. C.
Seydell Manufacturing Co., No. 86 Forrest street, Jersey City, N. J.
American Moistening Co., Atlanta, Ga.
Alfred Suter, 290 Fifth avenue, New York, N. Y.
Dana S. Courtney Company, Chicopee, Mass.
The Philadelphia Grease Manufacturing Co., Philadelphia, Pa.
National Scale Co., Chicopee Falls, Mass.
Alexander Bros., Philadelphia, Pa.
Ensign Manufacturing Co., Boston, Mass.
H. F. Livermore Company, Boston, Mass.
Otis Elevator Co., Atlanta, Ga.
Standard Fibre Co., Somerville, Mass.
Douglas Company, Cedar Rapids, Ia.
Scott & Williams, Boston, Mass.
B. S. Huntington, Greenville, S. C.
Eureka Manufacturing Co., Lincoln, N. C.
The Day Adjustable Bearing Co., Belton, S. C.
Anderson Machine & Foundry Co., Anderson, S. C.
Stuart W. Cramer, Charlotte, N. C.
The Textile Finishing Machinery Co., Providence, R. I.
Weston Electrical Instrument Co., Newark, N. J.
Chas. F. May, Greenville, S. C.
Economy Engineering Co., Chicago, Ill.
Remington Typewriter Co., Charlotte, N. C.
Monroe Calculating Machine Co., Orange, N. J.
Erie Pump & Equipment Co., Erie, Pa.
American Warp Drawing Machine Co., Boston, Mass.
Peech Sons & Phillips Company, Camden, N. J.
Wm. Firth, Atlanta, Ga.
Foster Machine Co., Westfield, Mass.
Economy Fuse & Manufacturing Co., Chicago, Ill.
A. W. Harris Oil Co., Providence, R. I.

Litchfield Shuttle Co., Southbridge, Mass.
National Aniline & Chemical Co., New York City.
Andrews Loom Reed & Harness Co., Spartanburg, S. C.
The B. F. Goodrich Company, Akron, O.
Cyclone Fence Co., Waukegan, Ill.
General Fireproofing Co., Youngstown, O.
American Duplex Steam Trap Co., Detroit, Mich.

Among the cotton mills and colleges that will have exhibits are:

Williamston Mills, Williamston, S. C.
Brogan Mills, Anderson, S. C.
Aragon Cotton Mills, Rock Hill, S. C.
Arcade Cotton Mills, Rock Hill, S. C.
Suckassee Manufacturing Co., Greenville, S. C.
Judson Mills, Greenville, S. C.
Graniteville Manufacturing Co., Augusta, Ga.
Camperdown Mills, Greenville, S. C.
Union Bleaching & Finishing Co., Greenville, S. C.
Woodside Cotton Mills, Greenville, S. C.
Pelzer Manufacturing Co., Pelzer, S. C.
Watts Mills, Laurens, S. C.
Duncan Mills, Greenville, S. C.
Spartan Sizing Compound Co., Spartanburg, S. C.
Rosemary Manufacturing Co., Roanoke Rapids, N. C.
Ware Shoals Manufacturing Co., Ware Shoals, S. C.
Loray Mills, Gastonia, N. C.
Franklin Process Co., Providence, R. I.
F. W. Poe Manufacturing Co., Greenville, S. C.
Parker Cotton Mills Co., Greenville, S. C.
Georgia School of Technology, Atlanta, Ga.
Textile Industrial Institute, Spartanburg, S. C.
U. S. Government Exhibit, Washington, D. C.
Y. M. C. A. Industrial Department, Charlotte, N. C.
Clemson Agricultural College, Clemson College, S. C.

Anti-Dumping Regulations Which British Dependences Enforce.

American manufacturers are deeply interested in securing legislation which will protect them from the disasters of unrestrained "dumping" of foreign products, which might occur under certain conditions in the future. In view of this general and widespread interest, the Bureau of Foreign and Domestic Commerce has prepared a general statement on the legislation in Canada, South Africa and Australia.

In Canada, it is stated, the anti-dumping law and regulations are made a part of the customs tariff and their administration a part of the work of the customs authorities. The customs tariff of 1907 provided, with certain specified exceptions, that "in the case of articles exported to Canada of a class or kind made or produced in Canada, if the export or actual selling price to an importer in Canada be less than the fair market value of the same article when sold for home consumption in the usual and ordinary course in the country whence exported to Canada at the time of its exportation to Canada, there shall, in such article, on its sale in Canada, there shall, in addition to the duties otherwise established, be levied, collected and paid on such article, on its importation into Canada, a special duty (or dumping duty) equal to the difference between the said selling price of the article for export and the said fair market value thereof for home consumption; and such special duty (or dumping duty) shall be levied, collected and paid on such article although it is not otherwise dutiable. 'Export price' or 'selling price' shall be held to mean and include the exporter's price for the goods, exclusive of all charges thereon after their shipment from the place whence exported directly to Canada."

When the invoice shows that the purchase price is the same as the fair market value, but complaint is made or suspicion is aroused, a special agent of the Canadian Government makes investigation to ascertain the home market value. If the seller of the merchandise is in the United States, a special agent often goes to his place of business and asks to see his books, price-lists, etc. The Customs Department of Canada has accumulated a considerable mass of information in regard to the prices of many classes of commodities and is often able to determine the fair market value of merchandise; but hearings are usually granted by the Commissioner of Customs to dissatisfied parties, and a special agent is sometimes sent to make additional investigations if there appears to be any ground for believing that the Customs Department has been misinformed as to the home market value of merchandise.

The Canadian law and the regulations under it were taken as a model for the anti-dumping clause which was introduced into the Underwood tariff bill for consideration in 1913. This section was included in the bill as it passed the House of Representatives, but was cut out in the Senate Committee on Finance.

In 1914 the Government of the Union of South Africa included an anti-dumping clause in its new tariff act. This clause likewise was modeled almost exactly after the Canadian clause. The South African act provides that in case of goods imported of a class or kind made or produced in the union, if the export or actual selling

price is less than the true current value of the same goods when sold for home consumption in the usual and ordinary course in the country from which they are exported, there may be collected, in addition to the duties otherwise prescribed, a dumping duty equal to the difference, which dumping duty shall not in any case exceed 15 per cent. ad valorem.

The Australian Government in 1906 enacted legislation against dumping. The Australian provisions are included in what is known as the Australian industries preservation act, which is the Australian law against monopoly and unfair competition in general. Under that act unfair competition has in all cases reference to competition with those Australia industries the preservation of which, in the opinion of the comptroller-general or a justice, as the case may be, is advantageous to the Commonwealth, having due regard to the interests of producers, workers and consumers. Competition is deemed to be unfair, unless the contrary is proved, if—

"(a) Under ordinary circumstances of trade it would probably lead to the Australian goods being no longer produced or being withdrawn from the market or being sold at a loss unless produced at an inadequate remuneration for labor; or

"(b) The means adopted by the person importing or selling the imported goods are, in the opinion of the comptroller-general or a justice, as the case may be, unfair in the circumstances; or

"(c) The competition would probably, or does in fact, result in an inadequate remuneration for labor in the Australian industry; or

"(d) The competition would probably, or does in fact, result in creating any substantial disorganization in Australian industry or throwing workers out of employment; or

"(e) The imported goods have been purchased abroad by or for the importer from the manufacturer, or some person acting for or in combination with him, or accounting to him, at prices greatly below their ordinary cost of production where produced or market price where purchased; or

"(f) The imported goods are imported by or for the manufacturer, or some person acting for or in combination with him or accounting to him, and are being sold in Australia at a price which is less than gives the person importing or selling them a fair profit upon their fair foreign market value, or their fair selling value if sold in the country of production, together with all charges after shipment from the place whence the goods are exported directly to Australia (including customs duty).

In determining whether the competition is unfair the Australian Government takes into consideration the management, processes, the plant, and the machinery employed or adopted in the Australian industry affected by the competition, and these are required to be reasonably efficient, effective and up to date. The Comptroller-General, whenever he has received a complaint in writing and has reason to believe that any person, either singly or in combination with any other person, within or beyond the Commonwealth, in importing into Australia goods with the intent to destroy or injure any Australian industry by their sale or disposal within the Commonwealth in unfair competition with any Australian goods, may certify to the Government accordingly. In making such certification the Comptroller-General is required to set forth in detail the grounds of unfairness in the competition.

The Comptroller-General, moreover, is required, before making his certificate, to give the importer an opportunity to show cause why the certificate should not be made, and to furnish him with a copy of the complaint. Upon receipt of the certificate the Government may refer to a justice the investigation and determination of the question whether the imported goods are being imported with the intent alleged, and, if so, whether the importation of the goods should be prohibited, either absolutely or subject to any specified conditions or restrictions or limitations. While such a question is the subject of investigation the goods involved are not allowed to be imported, unless the importer gives a sufficient bond or other security. The courts, in such cases, are required to base their decisions on the substantial merits, without regard to legal forms or technicalities, or whether the evidence before them is in accordance with the law of evidence or not. The determination of the courts is final and conclusive and without appeal, and cannot be questioned in any way. Notifications of

the findings of the courts shall have found that the imported goods are being imported with the intent alleged, and that their importation should be prohibited or restricted, the published notice has the same effect as a proclamation under the customs act prohibiting or restricting the importation of the merchandise.

CONKLIN'S TRANSCONTINENTAL "YACHT" TRIP.

Nomads for the Nonce, Adventuring a la
Arabian Caravan, in a Car de Luxe.

The "Land Yacht," as it has been named, which recently started on a trip from New York to San Francisco with its party of ten, is of particular interest to thousands of people in the South and West by reason of the fact that its owner is Roland R. Conklin, who for many years, so long as the firm existed as Jarvis & Conklin, of Kansas City, was heavily interested in the investment of English capital in the West and the South. Prior to the failure of Baring Bros. of London and the panic of '92-'93, Jarvis & Conklin had invested about \$30,000,000 or more of English money in Western and Southern enterprises. They invested very heavily in a great suburban development in Baltimore, Roland Park. They built an extensive electric railroad, including a considerable elevated track, in order to open up this suburban property and make it accessible to the city. Out of these two investments have grown what is probably the most remarkable suburban development in this country, and by many experts regarded as the best in the world. Jarvis & Conklin also invested heavily at Augusta, Ga., and at other points in the South.

Badly hit by the panicky conditions of '92-'93 and by the inability of their English associates to continue to put money into their American enterprises, Jarvis & Conklin transferred their office from Kansas City to New York and became identified with many banking and general financial interests in the East and in Cuba, and it is understood that they far more than recouped their losses. Some years ago the firm was dissolved, and Mr. Conklin became heavily interested in various operations, including extensive sugar enterprises in Cuba. Though he is no longer, we believe, interested in Southern developments, thousands of Southerners who knew him and his work are interested in his achievements.

The building of a special automobile of unusual design and character for a trip across the continent is an interesting illustration of his many-sided mental and financial activities.

Construction of the vehicle is of interest because of its complete equipment in general and its electrical equipment in particular, which is thought to be the most complete ever assembled on any automobile. The Western Electric Co. reports that this unique land yacht is equipped with a vacuum cleaner, two 10-inch fans, an electric soldering iron and an electric drill. The vacuum cleaner will be used to keep the interior of the cabin and the clothes of the passengers clean; the fans will keep the cabin air cool and fresh, and the soldering iron and drill will facilitate quick repairs.

Truly, this land yacht combines all the romantic atmosphere of the Arabian caravan with the luxuries and refinements of twentieth century skill and ingenuity.

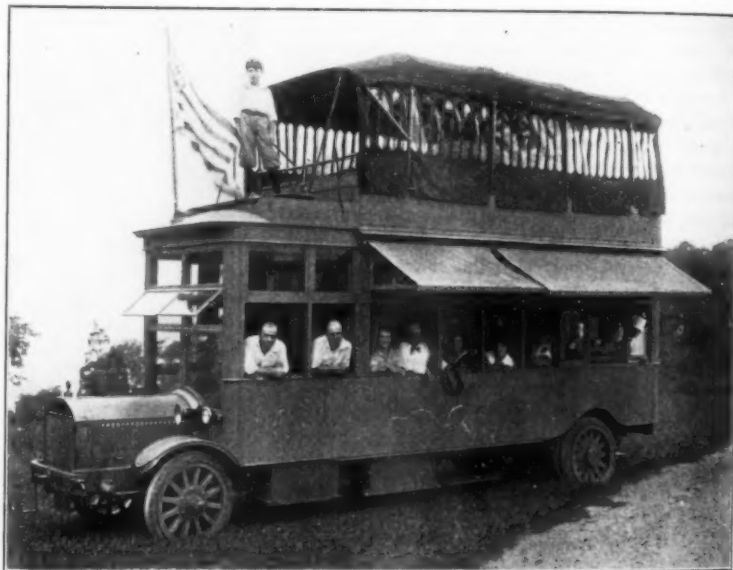
Walter L. Newberry has been appointed freight solicitor for the Pennsylvania Railroad at Baltimore.

Knoxville's Activity in the Promotion of Diversified Agriculture.

Knoxville, Tenn., September 30.—[Special].—Through the instrumentality of the Knoxville Board of Commerce a farm of 569 acres adjoining the present site of the Experiment Farm was purchased by the County Court of Knox county and the citizens of Knoxville at a cost of \$140,000, the farm being donated to the city in order that the work of the College of Agriculture of the University of Tennessee, located at Knoxville, might be broadened and enlarged.

The acquisition of this additional land will enable the College of Agriculture to expand, and will make it possible to bring the institution to its greatest development. It is the plan of Dr. H. A. Morgan, dean of the College of Agriculture, to make of Knox county a model in rural school organization and agricultural development. Dr. Morgan estimated that from 10,000 to 15,000 farmers will visit the Experiment Station annually from all parts of the State. For the past 43 years the East Tennessee Farmers' Institute has been meeting each spring in Knoxville, and at those meetings there has always been an attendance of not less than 3000 farmers from this section.

Aside from the inestimable value which the addition will be in the furtherance of scientific agriculture in Knox county and East Tennessee, there is an economic



ROLAND R. CONKLIN'S "LAND YACHT."

benefit as well, for under the Smith-Lever Act the University of Tennessee will receive through the College of Agriculture in 1921 and each year thereafter, should the State meet the appropriation of the Government, the sum of \$310,000. Aside from this appropriation, there will be many thousands of dollars annually spent through the College of Agriculture of the University of Tennessee at Knoxville by various divisions of the United States Department of Agriculture.

The donation of the additional farm land of the State Experiment Farm will furthermore enable the trustees of the State University to secure more funds from the Legislature in the maintenance and operation of the State's institution of learning than formerly, as it will enable them to successfully demonstrate to the State body that the citizens of Knoxville and Knox county are behind the State's university. A bill is now before the State Legislative body which, when passed, will give the State University \$200,000 additional to spend in the betterment of its buildings during 1915 and 1916.

The University of Tennessee today is worth more to Knoxville than any one factory we have, it being conservatively estimated that because of the location of the university here a half-million dollars is spent in Knoxville annually. When the new property is taken over by the University Farm forces there will immediately be inaugurated a farm where pure-blooded live-stock will be raised.

Yet another feature of the addition to the farm will be the ability of the management of the College of Agriculture to attract through the growth of the institution national live-stock and agricultural meetings which are quite impossible now. J. L. BOWLES.

Georgia to Raise \$150,000 to Advertise the State's Resources

[Special Correspondence Manufacturers Record.]

Macon, Ga., October 1.

The biggest thing that happened at the combination of meetings held in Macon this week, under the auspices of the Georgia Chamber of Commerce, was the launching of a plan for liberally financing the State Chamber of Commerce during the next three years. In accordance with the resolutions adopted, it is proposed to raise an advertising and maintenance fund of \$150,000, to be paid in at the rate of \$50,000 a year. This action was taken following the good-roads meeting Thursday morning, and was brought about by the adoption of a resolution offered by J. G. Weatherly, secretary of the Chamber of Commerce at Brunswick.

The plan provides for an equitable distribution of the expense throughout the State. Each county, according to the resolution, will be asked to pay its part of a \$50,000 annual maintenance and advertising fund during a period of three years. A financial agent will be employed to carry on this campaign. It was pointed out that the work of the organization had been limited and its scope lessened on account of insufficient funds, and with the large amount in hand great things could be accomplished for the Commonwealth.

In addition to broadening the activities of the State organization and the advertising campaign, which will be conducted through the newspapers, magazines, motion pictures and exhibit cars, the establishment of a marketing department, with a competent agent in charge and a freight bureau, was also urged.

Various meetings were held here on Wednesday and Thursday of this week. There was a representative gathering of Georgians, some of whom came to attend the good-roads conference; others the Georgia Mayor's conference, called by Mayor Bridges Smith of Macon, to see and discuss the possibilities of the Georgia motion-picture film; some came to attend the general meetings and the gathering of the tourists that are now participating in the second "Seeing Georgia" tour, which started from here yesterday afternoon 100 strong, all of which was under the auspices and was a part of the second annual convention of the Georgia Chamber of Commerce.

The first meeting of the convention was held Wednesday morning in the Grand Theater building. In his annual address President Charles J. Haden summed up briefly the past work of the State Chamber, its hopes for future development of the State, and ended with a plea for diversification of farm and manufacturing products. His reference to diversification led to a general discussion. The organization decided to take necessary steps toward fighting the approaching boll-weevil. Among the speakers were Commissioner of Agriculture J. D. Price, M. L. Brittain, superintendent of the State schools; Ogden Persons, president of the State Senate; State Senator L. R. Akin, Mayor John W. Callahan of Bainbridge, and others.

The annual election of officers was held during the Wednesday morning session. Mr. Hayden was re-elected to the presidency, and at the same time praised for his efficiency and work in behalf of the State and the organization as a constructive factor. Officers and executive committee were elected as follows:

President, Chas. J. Haden, Atlanta, Ga.; first vice-president, E. Y. Clarke, Quitman, Ga.; second vice-president, E. W. Stetson, Macon, Ga.; third vice-president, Crawford Wheatley, Americus, Ga.; fourth vice-president, Robert F. Maddox, Atlanta, Ga.

Executive Committee—L. P. Hillyer, Macon, Ga.; H. G. Hastings, Decatur, Ga.; E. H. Groover, Reidsville, Ga.; Wilmer L. Moore, Atlanta, Ga.; W. A. Winburn, Savannah, Ga.; P. M. Atkinson, Madison, Ga.; St. Elmo Massengale, Atlanta, Ga.; R. P. Spencer, Columbus, Ga.; S. J. Faircloth, Quitman, Ga.; L. R. Akin, Brunswick, Ga.; John A. Smith, Gainesville, Ga.; R. D. Cole, Newnan, Ga.; E. B. Clarke, Lagrange, Ga.; J. A. P. Davis, Albany, Ga.; J. Le Roy Hankinson, Augusta, Ga.; Sam Tate, Tate, Ga.; Harry Hodgson,

Athens, Ga.; Ogden Persons, Forsyth, Ga.; B. G. Brumby, Marietta, Ga.

The second public showing of the Georgia motion-picture film was held in the Grand Theater Wednesday afternoon, and was shown again at night. On both occasions the house was practically filled to capacity, and great enthusiasm prevailed. One of the features was the buildings and the student body of Wesleyan Female College, Macon, the first woman's college to be chartered in the United States, as the students attended the afternoon, showing the general interest was intensified.

The film, although only partly completed, served to show all present that it is to play an important part in exploiting the resources and advantages of Georgia to the outside world. Practically every industry in Georgia, with possibly the single exception of cotton, which industry is to be handled later from the seed to the woven cloth, was seen through the camera's eye. Summed up in about 7000 feet of film, these Georgia developments and potentialities will doubtless make a powerful appeal to the outsider to visit the State and possibly invest.

At Mayor Smith's conference E. Y. Clarke, the newly elected first vice-president, outlined to the mayors and city officials present the plans for building the film and its distribution. It is proposed to first run the picture in about 100 moving-picture houses in Georgia in serial form—two reels a week. When it is all completed and the reels have been shown around the State they will then be pruned down for exhibition outside. The industries, resources and views will be run in groups and under one general heading. It is planned to have the final masterpiece colored, the titles brushed up and bits of native comedy injected here and there to give it unexpected flavor. The mayors present were enthusiastic over the proposition, and all were anxious that their communities be represented on the film. Their co-operation will facilitate the further building of the film, which work will continue throughout the rest of the year.

The good-roads conference begun early Thursday morning, at which time claims were made and recognition asked for 14 highways radiating to all corners of the State, with Macon as the focal point. President Hayden appointed B. A. Tyler of Dalton, a widely experienced highway worker, to act as chairman of a committee to which all data will have to be furnished before final settlement will be made. If carried into effect this plan will give Georgia a very complete network of highways constructed of permanent material.

A resolution was adopted by the Georgia Chamber of Commerce at this meeting asking the State to create a permanent highway commission similar to those in Alabama and Virginia, to direct the road building in Georgia to the most successful ends. ROY G. BOOKER.

Gulf States Steel Plant Improvements.

Improvements to cost within \$57,000 are being undertaken by the Gulf States Steel Co., Birmingham, for its finishing mills at Gadsden, Ala. The contracts have been awarded, and the improvements may be briefly outlined as follows: Additional heating furnace at rod mill, involving two gas producers and hydraulic pusher; install third set of annealing galvanizing plans with motor, reeling frame, etc., for galvanizing department; extend galvanizing building about 300x40 feet.

Contract for 100,000 Suitcases.

One of the youngest manufacturing enterprises of Petersburg, Va., is the Totty Trunk & Bag Co., which has received a big order for suitcases. This contract is from one of the largest exporting companies, and calls for 100,000 suitcases, a portion to be made of matting and another portion to be of fiber. The Totty plant will supply these suitcases at the rate of 1000 daily.

FLORIDA VS. CALIFORNIA.

Surrounded as it is by the warm waters of the Gulf of Mexico on the west and the Gulf Stream on the Atlantic side, Florida is assured of an equable climate and one that is as good as can be found elsewhere in the whole world, if not better. It has no high mountains, as are found in California, from which cold blasts sweep down, chilling the atmosphere and causing a sudden drop in temperature of from 20 to 40 degrees in a few hours after the sun goes down. During the summers the Florida nights are cool and pleasant, according to old residents, who are unanimous in their assertion that Florida's summers are, if anything, more enjoyable than other seasons of the year. Cooling breezes, that constantly blow across Florida from ocean to Gulf, make even the July and August days more pleasant than they are through the Northern and Central States at that time. The thermometer rarely registers above the nineties, and heat prostrations are unknown.

Just to compare the average temperature of different sections, the following table, which was taken from the United States Weather Bureau reports for the last 15 years, is submitted:

	Average winter temperature.	Average spring temperature.	Average summer temperature.	Average autumn temperature.	Average yearly temperature.	Average highest temperature.	Average lowest temperature.	Average clear days.
Southern Italy.....	47.3	57.3	73.7	61.9	60	85	20	230
Los Angeles, Cal.....	52.0	60.0	70.0	65.0	62	100	28	250
Sacramento, Cal.....	48.0	60.0	75.0	61.0	61	100	29	238
Lee county, Florida..	64.0	72.0	81.0	75.0	73	88	54	279

As shown by the table, Lee county, on the west coast of Florida, is warmer in winter, and next to Southern Italy, which has an average winter temperature of 47.3 degrees against Florida's 64 degrees, has the lowest average high temperature of 88 degrees, being only 3 degrees above Southern Italy and 21 degrees lower than Los Angeles. Lee county is used only because the figures quoted are available for the 15 years from a recent publication about that county.

Those who do not like quite so high a temperature the year around can find in the northern part of the State higher up on the Gulf coast, as well as along the east coast, sections where the temperature averages several degrees cooler. It should be remembered that the State of Florida extends southward from Jacksonville about 400 miles or more, with the extreme lower part of the peninsula having an almost tropical temperature. Indeed a very wide range of temperature can be found in the State. At Miami, for instance, the winter temperature is much higher than at Daytona. Some people prefer the full summer warmth in winter of the Miami and Key West section. Some prefer the somewhat cooler but equally bright and sunny air of the Daytona region. With practically each 50 miles traveled southward in Florida one encounters a slightly warmer belt. Thus within the State there is offered a variety of climates from the temperate and semi-tropical to the almost tropical.

Florida has a greater percentage of clear days than is enjoyed by either Southern Italy or California. It has no earthquakes to wreck and ruin. Its mild and equable temperature and sunshine offers what many believe to be the greatest health-giving climate in the world. Such a climate is a Heaven-given blessing to the invalid or persons recuperating from severe illness. Thousands of people, now residents of Florida, are living examples of its invigorating climate. Many who had pulmonary trouble will tell you that they came to Florida 10, 15 or 20 years ago after their doctors had pronounced them incurable and predicted that they could not live longer than a few months. Today they are well and strong, and have been for years doing their accustomed work. Thousands of people, not only those seeking rest and health, but those in search of pleasure and wealth, spend their winters in Florida, enjoying its wonderful climate and engaging in business activities at a time when the North and West are covered with snow and ice. Instead of bare fields and leafless trees and ice and thawing mud, one looks upon stately palms, gardens of roses, cape jessamines, hibiscus, trailing bougainvillea and other beautiful flowers in tropical profusion, groves of orange and grapefruit trees in bloom, with their delicious fragrance permeating the atmosphere and borne on the breeze for miles, prosperous pineapple fields and

thousands of acres of vegetables and small fruits of all kinds.

Well may Florida be called "the winter playground of America." On its splendid beaches bathers disport themselves throughout the winter months and the crowds at the resorts remind one of the "good old summer time" and summer resorts of the North. There is a wide variety of ever-changing scenery, palm-bordered rivers and wonderful boulevard-like beaches, with delightful, comfortable hotels and plenty of gayety for the pleasure-seeking tourist. There are hundreds of miles of improved roads to delight the motorist, and its beautiful rivers and bays and lakes make sailing and fishing one round of pleasure. It is said that commercial fishermen have been known to make a single haul of 25,000 pounds of edible fish. Florida waters are the home of the tarpon, the king of all game fish; Spanish mackerel, trout, jew-fish, rovailliar, sheepshead, red snapper, bass and other varieties. Many sections of Florida also offer to the hunter unlimited opportunities. Its virgin forests and millions of acres of uncultivated land are inhabited by the black bear, wild turkey and deer, with large quantities of quail, squirrel, rabbits, opossum, wildcats, alligators, etc.

Florida also has the advantage over California in its nearness to the large cities and markets of the East and Middle West. It is only about 36 to 48 hours distant from New York or Chicago, while California is a five or six-day railway journey from the East across the continent. This nearness to the centers of the thickly-settled districts of the United States makes Florida an ideal resting-place for the tired business man who needs a few weeks' vacation during the strenuous winter season, not to mention the enormous advantage it gives to the vegetable and fruit shipper over all other sections.

The following figures have been tabulated to show the distances from the country's principal cities to a central point in Florida—Kissimmee—and Los Angeles, Cal., respectively:

TABLE OF DISTANCES SHOWING FLORIDA'S ADVANTAGE OVER CALIFORNIA.

	To Kissim- mee. Miles.	To Los Angeles. Miles.	Difference in favor of Florida. Miles.
Boston	1390	3225	1835
New York	1160	3145	1985
Philadelphia	1069	3054	1985
Baltimore	972	3014	2042
Washington	932	2974	2042
Richmond	802	2813	2011
Cincinnati	977	2421	1444
Cleveland	1221	2574	1353
Detroit	1238	2511	1273
Indianapolis	1064	2295	1231
Pittsburgh	1234	2701	1467
Chicago	1361	2360	999
Kansas City	1426	1907	519
Omaha	1540	1906	366
St. Paul	1655	2308	653

But Florida's greatness is not alone measured by its semi-tropical charm and the ideal living conditions encountered. It offers limitless advantages for agricultural and other material development. Florida, which is the largest State east of the Mississippi River, has only one-tenth of its 35,000,000 acres of land under cultivation. Practically all the crops that bring a high price per acre, such as potatoes, vegetables, fruits, tobacco, corn, hay, sugar-cane, peanuts, and even cotton, may be produced abundantly in Florida. It is not uncommon to hear of farmers making profits of from \$500 to \$1000 an acre on celery, and sometimes almost as much on potatoes, tomatoes and other vegetables. Citrus fruits also are large revenue producers. In the southern part of Florida mangoes and avocado or alligator pears and many other tropical fruits are extensively grown.

In other lines Florida has also developed very rapidly. Many millions of feet of lumber are shipped annually and millions of tons of phosphate rock add to the value of Florida's exports. In keeping with its development, the State of Florida and its counties have built hundreds of miles of improved highways; waterways have been deepened and canals dug, and in many ways the State is aiding in the betterment of conditions for the benefit of mankind.

What California has done in material development ought to be surpassed by Florida, for Florida has the better climate, nearness to the East, an abundant rainfall and many other advantages over California.

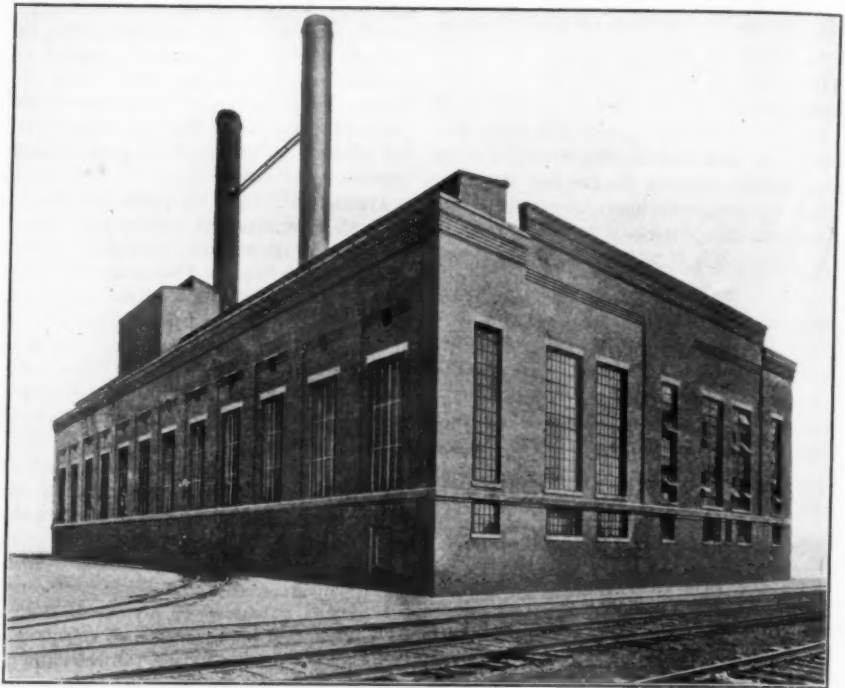
HOWARD L. CLARK.

Wheeling Traction Co.'s Improved Power Plant

The improved power plant of the Wheeling Traction Co., which has just been completed, is a good illustration of what may be done to rehabilitate an old, out-of-date plant into one of modern character and capacity, capable of affording first-class service efficiently and

arranged so that cars may be run under the ash pits providing for convenient removal of ashes.

The plant is laid out for the ultimate installation of three steel stacks, each of which will take care of about 1600 boiler horse-power. Cheap coal is obtained from



IMPROVED POWER PLANT WHEELING TRACTION CO.

with satisfactory economies. The picture herewith shows the station as it now appears.

The Wheeling Traction Co. is one of the properties of the West Penn Traction Co., and at Wheeling the latter has its second large power plant. Its site is on the Ohio River, from which water is taken and surface condensers are employed because of water conditions. The rapidly increasing use of power necessitated an 80-foot extension of the building and the installation of additional boilers and machinery. All the old boilers were reset on concrete foundations, which raise them above high-water level so that they cannot be interfered with by flooding of the river. Tracks were also

nearly mines, and it is conveyed to the plant over a spur track from the Pennsylvania lines. When ashes are removed they are used for ballast on the lines of the Wheeling Traction Co. A feature of the improvements is a water-softening system to relieve the river water of considerable acid which it sometimes contains, the chemical coming from mills farther upstream. This softening process keeps the boilers free from scale.

The work of improvement was done under the direction of W. E. Moore, general manager, and it was supervised by J. S. Jenks, assistant general manager of the West Penn Traction Co., with G. G. Bell as mechanical engineer; J. E. Thomas, electrical engineer, and J. M. Hopwood, superintendent of construction.

A \$375,000 STEEL PLANT.

Baltimore Company to Make High-Grade Alloy Steel.

High-grade alloy steel billets, finished product, etc., will be the output of a plant which Henry Hess of Philadelphia and associates will establish on the Baltimore waterfront. Baltimore capitalists have subscribed \$250,000 to the capitalization, which will be \$375,000, and a company will be organized to construct and equip the plant. The necessary machinery has been purchased, and the equipment will include two electric furnaces, rolling mills, etc., with electric power throughout, producing steel for fine machine work. Mr. Hess was until recently of the Hess-Bright Manufacturing Co., Philadelphia, manufacturer of high-grade ball bearings, and is connected with the Hess Steel Co. of Bridgeton, N. J., and the Hess Steel Castings Co., Philadelphia, mentioned several months ago as planning to build works at Baltimore.

Plans for the future are to increase the capitalization to \$1,000,000 and extend the plant as warranted by the demand for the company's product. Mr. Hess had been considering various locations on the Eastern seaboard, and decided to build at Baltimore mainly because of the low rate for electricity offered by the Consolidated Gas, Electric Light & Power Co. of Baltimore, J. E. Aldred of New York, chairman of directors. The

Baltimore capital was secured through the Industrial Corporation of Baltimore City, whose purpose is to aid in securing manufacturing enterprises for Baltimore, and which was organized through the suggestion and efforts of Mr. Aldred. Leading capitalists, bankers, manufacturers and merchants compose the Industrial Corporation, and its officers include John R. Bland, president; Eugene Levering, treasurer; C. C. Pusey, secretary.

Georgia Pottery Clay Investigated.

Under the auspices of the Chamber of Commerce of Macon, Ga., a careful and complete study has been made of the raw materials for pottery manufacture existing in the vicinity of Macon.

This investigation has been conducted by Dr. T. Poole Maynard, and a special meeting of the Chamber of Commerce has been called for October 5, when Dr. Maynard's report will be read.

The purpose of this investigation has been to determine exactly what Macon has to offer for the location of pottery industries, and it is said that the facts to be presented by Dr. Maynard will show that the section around Macon can furnish the needed raw materials for very much less than are now being secured in other American pottery manufacturing communities.

Good Roads and Streets

SOUTHERN HIGHWAY ACTIVITIES.

Record of Week's Progress in Improvements in City and Country.

Bonds Voted.

Crawfordville, Fla.—Wakulla county will issue \$15,000 bonds for road construction.

Lexington, Ky.—Fayette county voted \$300,000 bonds to construct roads, etc.

Sweetwater, Tenn.—City voted \$5000 bonds to improve streets.

Bonds to Be Voted.

Fellsmere, Fla.—City will vote on \$150,000 bonds for street and sidewalk paving.

Mannington, W. Va.—Marion county, Mannington Road District, will vote October 12 on \$300,000 bonds for road construction.

Contracts Awarded.

Athens, Tex.—City awarded contract for street paving to cost \$18,000.

Baltimore, Md.—City awarded \$16,922.50 contract for 11,200 square yards paving.

Bland, Va.—Bland county awarded contract to grade and drain 2.46 miles of road.

Camden, Ala.—Wilcox county awarded \$70,000 contract for 20-mile road.

Carrollton, Ala.—Pickens county awarded \$90,000 contract for 10-mile road.

Carlisle, Ky.—Nicholas county awarded \$24,910.78 contract for road construction; 13,000 cubic yards crushed stone.

Columbia, Tenn.—City awarded \$50,000 contract for street paving.

Dayton, Tenn.—Rhea county awarded \$210,000 contract for highway macadamizing, etc.

El Paso, Tex.—City awarded \$42,596.96 paving contract.

Mayfield, Ky.—Graves county awarded \$26,000 contract for grading and graveling 10¼ miles of road.

Madisonville, Ky.—Hopkins county awarded contract for four miles of State-aid roads.

Parkersburg, W. Va.—City awarded \$4890 contract for vitrified brick street paving.

Princeton, Ky.—Caldwell county awarded \$11,000 contract for two-mile macadam road.

Russellville, Ky.—Logan county awarded \$10,000 contract for 2.7 miles macadam roads.

Scottsboro, Ala.—Jackson county awarded \$9165.75 contract for drainage and grading pike road.

Contracts to Be Awarded.

Baltimore, Md.—City receives bids until October 13 for 2200 yards of sheet asphalt, 350 square yards of vitrified block, 540 square yards and 2440 square yards of vitrified block.

Bath, P. O. Berkeley Springs, W. Va.—City has \$30,000 available for paving.

Camden, Ala.—Wilcox county receives bids until November 1 for five-mile road.

Denison, Tex.—City invites bids until October 19 for 13,000 square yards of asphaltic paving.

De Land, Fla.—City invites bids until October 10 for constructing six miles pine-straw road.

Eastville, Va.—Northampton county has \$25,000 available for highway construction.

Elizabethton, Tenn.—Carter county will construct about 70 miles of road, complete roads already graded, construct concrete culverts and bridges, etc.

Fort Worth, Tex.—City receives bids until October 12 for 12,300 square yards of poured asphalt-macadam pavement.

Miami, Fla.—City will construct 14,000 yards of asphaltic concrete pavement.

Pinetown, W. Va.—Wyoming county will construct about 200 miles of dirt road.

Sarasota, Fla.—City receives bids until October 9 for 700 square yards asphaltic concrete pavement and 800 feet of combination curb and gutter.

Sedalia, Mo.—City will construct 9200 square yards of vertical filter brick paving with asphalt filler; cost \$16,000.

MAKING NEW PAVING BLOCK.

First Plant of the Kind in This Country Has Been Successfully Established in the South.

About two years ago the Harris Granite Quarries Co. purchased a machine from Sweden and installed it at its quarries at Salisbury, N. C. This machine, which

The work of this machine at Granite Quarry was so satisfactory that it was decided to install a battery of 20 of them. This plant has just been completed, and is of particular interest, as it is the only one of its kind in the United States at the present time, and marks the first attempt to manufacture and market this type of pavement in this country.

While some of the plants abroad are larger than this

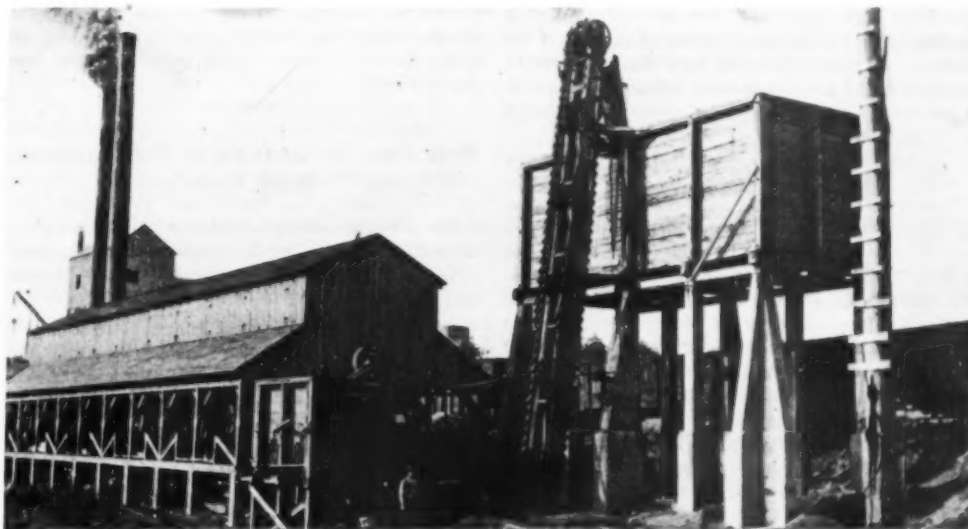


TYPICAL DURAX BLOCK PAVEMENT LAID IN CONCENTRIC CIRCLES, SHOWING PORTION GROUTED WITH MEXICAN ASPHALT.

is of the same type as those used universally abroad, is especially designed for the manufacture of a special type of stone block paving, suitable for streets or highways.

These blocks are made up of small granite cubes

one, it is said that the plant at Granite Quarry is the best-arranged and equipped plant for making these blocks in the world. Labor is so cheap abroad that no labor-saving devices were installed in the "Durax" plants there to handle all waste as well as the finished



GENERAL VIEW DURAX PAVING BLOCK PLANT, HARRIS GRANITE QUARRIES CO., SALISBURY, N. C.

of varying dimensions, ranging from 2¼ inches to 3½ inches. They have been quite extensively used in all European countries, and in England they are known as "Durax" and in Germany, "Kleinpflaster."

product. While the designers of the Salisbury plant had no precedent to follow in the way of labor-saving devices, they so laid out the plant that it would provide the most economical handling of raw material, finished

blocks and waste, and, as far as possible, to eliminate much labor.

The machines for making these blocks originated in Sweden, where an enormous quantity of blocks are exported annually, one concern operating as many as 62 machines and having an annual production of 700,000 square yards of this pavement.

While the first machine was purchased from abroad, the remaining machines installed in the plant were made in this country, so that these machines can now be obtained on short notice.

One of the accompanying illustrations, showing the machines being erected, gives some idea of their size and character, while another shows the manner in which they have been arranged in two parallel rows of 10 machines each.

The operators of one row of machines stand with their backs to those operating the other row. Under the floor of the passageway between the machines are two belt conveyors, which will be noted in one of the illustrations. One of these conveyors takes the finished blocks, which are delivered to it from chutes leading



DOUBLE ROW DURAX PAVING BLOCK MACHINES, WITH BELT CONVEYORS FOR HANDLING FINISHED PRODUCT.

from each machine, and delivers them to an elevator which discharges into a bin from which they can be drawn into cars for shipping. The other conveyor takes the waste from each machine and delivers it into a storage bin from which it is taken into the crushers.

The raw material will be delivered to the machines from tram cars, which will enter the building on an overhead track and dump into chutes at the side of the machine. At present, however, until this track can be constructed, the material is being delivered by wagons to the rear of each machine and descends by gravity to the operators.

The plant has been so laid out that its capacity can be easily doubled when required.

These small granite tubes have been used as a paving material on German streets and roads for more than 30 years, and they have also been extensively used in many English and European cities, particularly in and about Paris, London, Liverpool, Birmingham and Berlin vicinities. About 1,500,000 square yards have also been laid in Chili and about 1,000,000 square yards in Argentine, South America, where a large percentage of the blocks are imported from Sweden and Denmark as ballast for west-bound ships.

Several years ago they were introduced into this country, the first "Durax" paving being laid in the United States Navy-Yard at Brooklyn, N. Y., in May, 1913. Since that time this paving has been laid in New York City, Philadelphia, Washington, Cleveland, Columbus, Louisville and Danville, Va., so that its use is steadily increasing as engineers become more familiar with its advantages.

In the common European practice for city streets these blocks are bedded evenly on one-half inch or three-quarters of an inch of granite chips, upon a concrete foundation (not less than five inches) with the top

surface carefully smoothed off to conform to grade. After the blocks have been placed, the joints are filled with clean granite chips and then rammed to solid bearing. After ramming, the joints are flushed with granite chips and then into the joints is poured a bituminous mixture, heated to a temperature of 300 degrees Fahr. Enough mixture is poured to fill the joints, making the pavement absolutely impervious to water. A thin grout filler, consisting of one part Portland cement and one part sand, may be used instead of the bituminous mixture, but the latter gives a quieter and more elastic pavement.

One of the striking features of this paving is that the blocks are not laid in straight courses at right angles to the curb, but in concentric interlocking seg-



MACHINES FOR CUTTING DURAX PAVING BLOCK.

ments of circles or in diagonal courses. The advantages of this are that a wheel of a vehicle is likely to be on two stones at the same time, and the opposite wheel does not pass simultaneously over the same course. This not only reduces the jar, but also results in far less noise from traffic, and produces less wear and tear on the vehicle. Another advantage is that the wear on the pavement is better distributed, making the paving more durable.

One of the illustrations shows a section of this pavement being laid in Philadelphia by the Metropolitan Paving Co., 11 Pine street, New York City, and the method of laying in radial curves can be plainly seen. The illustration also shows a portion of the pavement on which Mexican bituminous filler has been applied.

This extensive plant has been established by the Harris Granite Quarries Co. at Salisbury, N. C., in order to meet the increased demand for "Durax" block in this country. To make this block, a tough, hard granite with good lines of cleavage is necessary, and the granite of the Harris company has been found especially suited for this purpose.

To facilitate the proper use of "Durax" blocks, the Harris Granite Quarries Co. has compiled complete specifications for the benefit of municipal engineers and others desiring to investigate or use this type of pavement.

West Virginia Interested in Trans-Alleghany Road Project.

The growing interest of West Virginia counties in the building of good roads was reflected at the recent meeting of the Trans-Alleghany Good Roads Association at White Sulphur Springs, W. Va.

One of the main questions before this meeting was the selection of the route that would form a part of a national highway now in process of construction at various points across the Alleghenies from Catlettsburg, Ky., to Staunton, Va.

Advocates of both the Giles, Fayette and Kanawha turnpike and the James River and Kanawha turnpike presented their claims as to the selection of their particular route.

Resolutions were adopted placing the association in favor of the reconstruction and completion of the Giles, Fayette and Kanawha turnpike, and recommending the construction of the James River and Kanawha turnpike.

The president of the association was empowered to appoint committees from the several counties involved

to take up with the various county courts plans to provide for these improvements. The association also authorized a special tour, under the auspices of a committee appointed by the president, to start from Charleston on October 8 to traverse both of these routes.

The president of the association is President George W. Stevens of the Chesapeake & Ohio Railway, and in a statement to the members said that while the building of permanent highways paralleling the Chesapeake & Ohio would materially injure the passenger traffic of that road, yet he believed the ultimate results would effect such a development of local conditions to enable his road to cover such losses. He likewise pointed out that, being interested in the welfare of the tributary communities along the road, he was cheerfully taking part in this good-roads improvement, and would do all he could to further it.

The hauling of materials for the building of these roads is being done by the Chesapeake & Ohio Railway free of charge.

Georgia Cities Organize Triangle Highway Association.

Macon, Ga., October 1.—[Special].—A by-product of the annual meeting of the Georgia Chamber of Commerce was the formation of the Triangle Highway Association, composed of good-road boosters from Macon, Brunswick and Bainbridge, the object being to connect the roads leading between these cities in the form of an equilateral triangle. The motto adopted was: "We have good roads now—we are going to make them better." The idea is to co-operatively work the roads and construct those needed to complete the triangle. State Senator L. R. Akin of Brunswick was elected president, and Quimby Melton of Bainbridge, secretary.

A Suggestion to Road Engineers.

A suggestion is made by Lyman Bryan of Baltimore that curves in public highways should be constructed the same as curves in railroads are made, so that a vehicle rounding the curve on the right-hand side of a road, turning to the left, will have less difficulty in preventing overturning than at the present time.

Mr. Bryan suggests that this is a matter that road builders throughout the country might properly give some consideration to.

Official Tour of Dixie Highway.

A number of the officials and directors of the Dixie Highway Association will participate in the first official inspection tour to be made over the Dixie Highway from Chicago to Miami, Fla., starting October 9. All along the entire route special meetings have been planned to welcome this official party and to further the cause of good roads.

Enlarging Sawmill to Take Care of Orders.

The Bolinger Milling & Manufacturing Co., Klondike, Tenn., has received contract to furnish 10,000 standard railroad ties to the Southern Railway Co., and has another order for 1000 Bolinger Eureka lawn swings. It will add a new sawmill with daily capacity 5000 feet of lumber in connection with meeting the demands of these orders.

Resuming Operations at Four States Coal Mine

Annabelle mine of the Four States Coal & Coke Co. on the Baltimore & Ohio Railroad near Worthington, W. Va., has resumed production and is expected to be operating at full capacity during this week. W. J. Wolf, Fairmont, W. Va., manager, under the direction of the Four States receivers, advises the MANUFACTURERS RECORD as follows:

"Steady work is the outlook for the fall and winter season, all of which is welcome news to the Fairmont district. This mine employs about 600 men when running full capacity, and has an output of about 3000 tons of coal per day."

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

CHESAPEAKE & OHIO REPORT.

Increase of Over \$2,000,000 in Gross—Northern Extension to Be Ready in 1916.

The annual report of the Chesapeake & Ohio Railway Co. for its fiscal year ended June 30, 1915, displays steady and gratifying progress and indicates that next year the gross earnings will probably top the \$40,000,000 mark by at least a million or two. Not only do the transportation revenues, which are the largest in the history of the company, exceed those of the next preceding year by more than \$2,000,000, but expenses have been kept down and the net results correspondingly increased. In addition to this, the construction of the extension into Ohio has begun, and it is to be completed in the fall of next year. This line starts from near Edgington, Ky., and runs northward 30 miles to near Waverly, O., where connection is made with the Norfolk & Western Railway, whose tracks will be used from there to Valley Crossing, near Columbus, where connection will be made with the Hocking Valley Railway. Originally the Chesapeake & Ohio proposed to build a new line all the way from Kentucky to Columbus, about 122 miles, but the attainment of a trackage agreement with the Norfolk & Western rendered unnecessary any construction further than Waverly, and about a year hence it is expected to operate over the new through route, which includes the construction of a fine steel bridge over the Ohio River, recently illustrated in the MANUFACTURERS RECORD. The construction of this extension will be of inestimable value to the system for the transportation of coal and other through freight to and from the docks at Toledo.

There has been extensive industrial development along the Chesapeake & Ohio lines during the year, the following new plants being established: Sixteen manufacturing of farm implements and farm products; 15 manufacturing of lumber products; 30 manufacturing of mineral, metal and other products. In addition to this, there were at the end of the year on the lines 215 organized companies for the production of coal and coke, having a total of 338 separate mines, of which 319 were in operation. Of a total of 1219 coke ovens, 445 were in blast and 6 out of 10 iron furnaces were also operating and producing 950 tons of pig-iron daily, the total daily capacity of the 10 furnaces being 1490 tons. There was also a good influx of new settlers, 214 of them having located in the territory served by the system since last year, and they bought 49,011 acres of land from private parties, the total investment for this being \$1,288,811.

Improvements to the property included the relaying of 50 miles of track with new rails, a large part of which weigh 100 pounds per yard and the rest 90 pounds per yard, the total tonnage of these rails being 7353. Since July 1 of this calendar year there have also been bought 13,500 tons of 100-pound rails, 3500 tons of 90-pound rails and 500 tons of 125-pound rails, part of which had been laid up to September 16.

The general income account shows operating revenues \$39,464,036.90, increase as compared with the fiscal year ended June 30, 1914, \$2,004,173.10, or 5.4 per cent.; operating expenses \$27,556,413.50, increase \$1,142,514.99, or 4.3 per cent.; net operating revenue \$11,907,623.49, increase \$861,658.11, or 7.8 per cent.; ratio of operating expenses to operating revenue 69.8 per cent., last year 70.5 per cent.; gross income after adding income from other sources \$12,925,842.57, decrease \$264,773.07, or 2 per cent., there having been a decrease of 52.5 per cent. in the revenues from sources other than operating; net income after deductions for interest on debt, taxes, rentals, etc., \$2,663,536.62, decrease \$308,279.17, or 10.4 per cent.; balance to credit of profit and loss \$2,947,539.83 after additions and deductions, as compared with \$1,561,833.39 last year.

Details of the income account show that the revenues from freight traffic were \$31,288,536.62, an increase of \$2,422,020.46, or 8.4 per cent.; revenues from passengers were \$5,096,088.37, a decrease of \$401,970.59, or 6.6 per cent., but in the number of passengers carried

the decrease was only 0.1 per cent., although the number carried one mile decreased 7.6 per cent. The revenue coal and coke tonnage was 21,325,742, increase 10.8 per cent.; total revenue tonnage, including the foregoing, 30,048,454, increase 8.4 per cent. Revenue ton miles were 8,138,347,516, increase 15.2 per cent.; revenue per freight train mile \$3.484, decrease 2 per cent.

The general balance-sheet shows total assets of \$290,529,720.45, which includes the property investment, less accrued depreciation, at \$216,913,909.55.

Southern Railway Statement.

The Southern Railway Co. has issued its statement of the results of operation for August and for the first two months of its new fiscal year, which began July 1. The figures for August show gross revenue \$5,311,892, decrease as compared with the same month of last year \$376,152, or 6.61 per cent.; operating expenses, taxes and uncollectible railway revenues \$3,921,253, decrease \$661,639, or 14.44 per cent.; expenditures for improvements to roadway and structures in addition to operating expenses, \$578,340.92; for same purpose in August, 1914, \$537,445.24.

The gross revenue for the two months was \$10,523,527, decrease as compared with the corresponding period of last year \$869,636, or 7.63 per cent.; operating expenses, taxes and uncollectible railway revenue \$7,815,241, decrease \$1,303,298, or 14.29 per cent.; expenditures for improvements to roadway and structures in addition to operating expenses, \$1,048,842.89; for same purpose during corresponding period last year, \$829,137.86.

The company disbursed during August for labor, material and supplies and other purposes \$4,100,376, of which \$3,656,732, or 89 per cent., was paid to individuals and industries located in the South. Of its revenues earned, approximately \$3,712,800 were paid by its patrons in the South, and it will therefore be noted that the company turned back into the South all but \$56,000 drawn from it. Of this, \$30,000 accrues and will subsequently be paid in the South as interest on the company's bonds.

SANTA FE'S BANNER YEAR.

Texas Lines Gave the System Heavily Increased Profits Due to Big Crops.

In the annual report of the Atchison, Topeka & Santa Fe Railway for its year ended June 30, 1915, President E. P. Ripley says that the record earnings, which, in addition to being the largest in the history of the system, display a big increase over last year, are mainly due to "the unprecedented wheat crop of Kansas and the largely increased yield of agricultural products of all kinds in the so-called 'plains country' in Western Texas and Western Oklahoma. These two items were more than sufficient to overcome a falling off of \$1,304,472 in net revenue of the lines west of Albuquerque.

"The wheat of Kansas and Oklahoma was largely exported via Galveston, thus giving the Santa Fe the longest possible haul and the largest possible earnings, and this has created so marked an improvement in business of its Texas lines as to make their net earnings much more than ever before."

The general income account displays results as follows: Total operating revenues \$117,065,587, increase as compared with last year \$6,555,817; operating expenses \$76,091,554, increase \$2,682,220; net operating revenue \$41,574,034, increase \$3,933,598; operating income after taxes \$36,051,401, increase \$3,936,550; total income \$39,048,551, increase \$4,759,347; net income \$24,130,862, increase \$3,946,897; balance after dividends \$6,580,846, increase \$3,797,321.

A Line Expected to Change Hands.

The Tennessee, Alabama & Georgia Railroad, according to a report from Gadsden, Ala., the southern terminus of the line, which runs from there to Chattanooga, 92 miles, has passed or will soon pass under the control of the Louisville & Nashville Railroad, although no official announcement has yet been made to confirm this statement. Until recently Newman Erb was president of the road, whose New York offices were at 42 Broad-

way; now J. J. Slocum is president, and the offices are at 111 Broadway.

It is also reported that the line will be practically rebuilt for its entire length and brought up to the best modern standards. The Louisville & Nashville reaches Gadsden as it does Chattanooga (through a subsidiary), and the line would be of much value to it. Acquisition of the road seemed to be pending several years ago, but negotiations failed. It would be of advantage especially as a short route between several important points, notably between Cincinnati and Birmingham, with the probable construction of a short link from Etowah to Chattanooga.

CONTRACT LET FOR \$1,000,000 COAL PIER

Pennsylvania Railroad's Big Work at Baltimore Definitely Under Way.

Contract has been awarded to the Arthur McMullin Company of New York for constructing the \$1,000,000 coal pier which the Pennsylvania Railroad Co. has been proposing to build at Canton, Baltimore. Final plans call for a pier of steel and concrete construction, 935 feet long by 66 feet wide, accessible from each side, equipped for a 10-hour capacity of 6000 tons of coal. The operating machinery will be installed by the Mead-Morrison Manufacturing Co. of Chicago. The Maryland Dredging Co., Baltimore, is now proceeding with its contract (recently obtained) to dredge 235,000 cubic yards, excavate 40,000 cubic yards, drive 1500 piles, etc., preliminary to the construction of the new pier.

\$500,000 Station for Winston-Salem.

The Norfolk & Western Railway, according to a report from Winston-Salem, N. C., is preparing plans for the construction of a union station there which will be used also by trains of the Southern Railway. The station will be a two-story building on the site of the freight station, which is several hundred yards south of the present passenger depot. Approach to the new station will be over a viaduct of steel and concrete. It is estimated that the cost of construction will be about \$500,000. It is understood that an agreement as to the improvement between the railway and the Board of Trade is practically assured.

New Equipment, Etc.

Public Belt Railroad of New Orleans has ordered 5 switching locomotives from the Baldwin Works, Philadelphia.

Western Maryland Railway has ordered 2000 tons of rails from the Carnegie Steel Co. and the Bethlehem Steel Co.

Jonesboro, Lake City & Eastern Railway has purchased some new passenger equipment.

Baltimore & Ohio Railroad is reported in the market for 500 box cars.

Charleston Southern Railroad (the Seaboard Air Line extension now building) has ordered 12,000 tons of 90-pound rails from the Maryland Steel Co.

Norfolk & Western Railway is reported getting prices for 10 mountain type locomotives.

Tampa & Gulf Coast Railroad contemplates using a gasoline motor car on a branch line, and is experimenting with one.

Western Maryland Railway, which has been in the market for cars, is reported to have placed orders for 650 gondola cars of 70 tons capacity with the Standard Steel Car Co. and 200 automobile cars with the Western Steel Car & Foundry Co.

Chicago, Rock Island & Pacific Railway will purchase 7000 tons of rails.

Texas & Pacific Railway has ordered 1000 tons of rails from the United States Steel Corporation.

Charleston Southern Railroad (Seaboard Air Line) will require about 3000 tons of bridge steel.

Santa Fe system is reported to have ordered 30,000 tons of rails from the Illinois Steel Co.

Central of Georgia Railway will purchase 1 baggage and mail car and 4 baggage and express cars.

MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

Construction and Operation of Simplate Valves

Although the Simplate valve, as manufactured by the Chicago Pneumatic Tool Co., 1059 Fisher Building, Chicago, Ill., is classed among the flat-plate type of compressor valves, it is claimed to be unlike any and all other valves because it is unique and distinctive in both design and construction. Valve plates are made of a special alloy steel, heat treated, oil tempered, straightened perfectly and ground true on one side only, and are rigidly inspected before assembling. Springs for the valves are made of high-grade crucible steel, drawn at the proper temperature and put through a series of rigid inspection tests. Valve plates are independent in action, one of another, with each plate having its individual spring.

Chief advantages claimed for the Simplate flat-disc valve are that it is simple, light and durable, with all parts interchangeable; noiseless in operation; always tight; equally suited to high or low temperature, and applicable to all positions and conditions.

Figure No. 1 of the accompanying illustrations shows a discharge valve. The valve seat (A) is cast from a special composition possessing toughness and high tensile strength, and it also has circular ports, as shown in the figure. It is machined so that the raised portion of the seat, or the points on which the plates rest, forming the joint, is very narrow, thus reducing the unbalanced area to a minimum.

The keeper (B) is of the same material, and is provided with suitable ports for the free passage of air through it. It also furnishes the guides for the valve plates, and affords, as well, satisfactory pockets for the valve springs.

The valves (C) are simple concentric steel plates of uniform section, with a separate and independent plate over each part. Each plate is also independently governed by its own springs; hence the action or opening of each valve is entirely independent of the other. Should one of the plates open, the one next to it does not necessarily need to move, unless the speed conditions should demand it.

The springs (D) are of the volute type, and are made of special alloy steel, heat treated and carefully tempered. They have the proper tension for the discharge and inlet valves, so as to effect the most perfect valve action. The parts making up a complete valve are assembled and held together by the nickel-steel stud (E) and castle nut (F), and when this nut is securely tightened in place it is firmly held so by cotter pin (H).

Figure No. 2 illustrates the inlet valve, the construction of which is very similar to that of the discharge valve. It differs only in the following respects: The valve stud enters through the keeper instead of through the seat, as does the discharge; the keeper is thinner, and the springs are of lighter tension. On account of the difference in the thickness of these valves, they cannot be reversed; that is, the inlet cannot be put in where the discharge should be, and vice versa, this precautionary measure being deemed by the manufacturer to be highly necessary. In order to get the full benefit of the varied opening of the different plates when the piston speed is changed, the spring tension on the inlet valves is very light.

All parts entering into the construction of Simplate valves are said to be of the highest quality and workmanship, and the Chicago Pneumatic Tool Co. guarantees to repair or replace free of charge any part which is found to be defective in workmanship or material within a period of one year after date of shipment. Booklet No. 213, describing Simplate valves, has recently been issued, and will be sent to interested persons upon request to the company.

New South Corn Mill.

Corn-grinding machinery for making bread meal has developed very rapidly during the past decade, and the new types are gradually replacing the old cumbersome mills formerly employed. Aptly illustrating the latest designs of this improved corn-milling machinery is the New South corn mill manufactured by the American Corn Mill Co., Winston-Salem, N. C. This mill is shown in the accompanying cut, and its features of construction are described by the company as follows:

"The stone burrs in the mill are made of the famous North Carolina flint, which is the best and most successful stone for making bread meal. The construction of the New South corn mill is of the very best. Bearings are extra long and heavy, and lined with anti-friction babbitt. The burrs are adjusted by the means of a hand-wheel and a ball-bearing end-thrust screw, and are held in place by a locknut. A relief spring prevents burrs from running together when mill is

ation of the mill. After the grain has passed through the screen and on its way to the stone it comes in contact with a strong current of air from a fan attached to the shaft of the runner bar, which removes all remaining foreign substances. This combination is not found on any other mill, and is the only perfect and successful way of cleaning the grain. The New South corn mill will produce 95 per cent. pure, wholesome meal, which is 20 per cent. more than the old-style mill."

The mills are made in sizes having capacities of 4, 6, 8, 10 and 12 bushels of bread meal per hour, and their output is claimed to be from 50 to 100 per cent. more when grinding feed. The American Corn Mill Co. announces its product is sold only to hardware merchants and machinery dealers.

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Horseshoe Nail Machines Wanted—Doing Business With American Concerns.

G. C. Tsatsos, 37 Rue d' Thermes, Athens, Greece:

"I am mailing you some horseshoe nails. There are firms in Greece manufacturing common nails (pointes de Paris), and there is one desiring to obtain a machine for the manufacture of horseshoe nails similar to the samples I am forwarding in extra soft steel, commonly known as 'Swedish steel.' I presume this inquiry falls into your aims of propagating American machines, and that your reply will promptly reach me. As regards the size of the machine required and the supply same should produce, we have by no means the enormous quantities and consequent sizes required by your markets; your offers should tend to the most perfected system of up-to-date mechanism, etc., but to your smaller sizes and most moderate prices. I am indebted to your periodical for opening business relations with United States Cast Iron Pipe & Foundry Co., Philadelphia; Cary Spring Works, New York; United Lead Co., New York. I have not applied to any of the steel works you recommended, because I am already doing business with the American Steel Export Co., entrusted also with the exportation of the Cambria steel products. I have transmitted important orders to this firm, but if I do not succeed in obtaining their exclusive agency for Greece I shall feel justified in applying to one of the large manufacturing firms you mention. Custom in this country creates prejudice against firms that tender their offers through several agents in the same center.

Shoe Nails and Pegs.

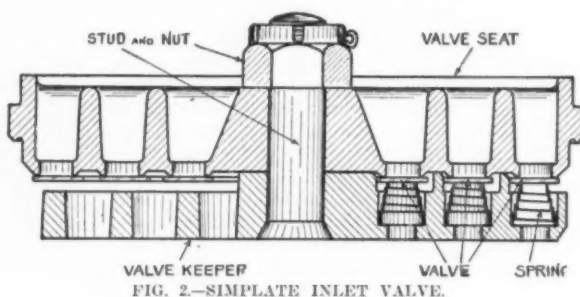
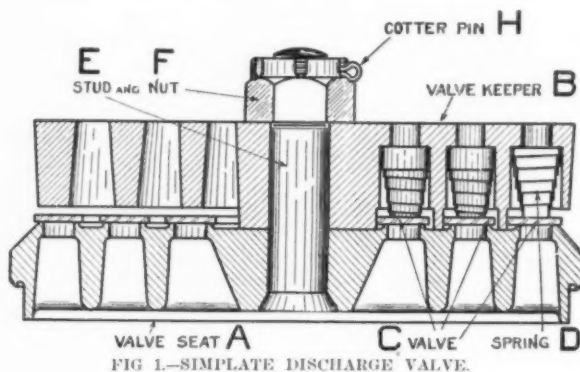
Panos C. Pappageorgacopoulos, 77 Kolocotroni street, Piraeus, Greece:

"I send this mail samples of nails and pegs for shoes, the consumption of which is great and important here. They should be delivered in packages of five kilos each, of very different forms, sizes and lengths, and I beg you to interest your manufacturers in this article, for I have on hand now contracts already closed to furnish \$40,000 worth and ship immediately. This business is extremely important, for we are continuously in receipt of requests from our friends to get this article from your people in America, for the other markets in Europe are closed to us."

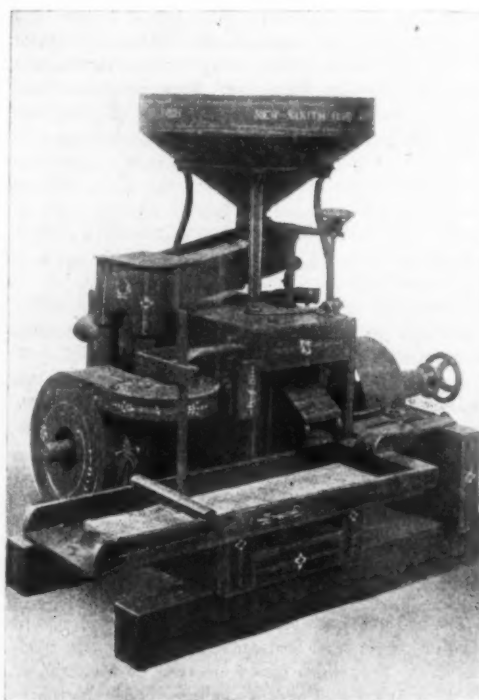
Galvanized Cables for France.

Corderies de la Seine, Le Havre, France:

"We buy steel galvanized cables with resistance of 110 and 100 kilograms for each square kilometer. We also buy cables of pure steel of 140, 100, 180 kilograms resistance for each square millimeter. The cables are to consist of 6 turns of 12 strands, 6 turns of 19 strands, 6 turns of 24 strands and 6 turns of 37 strands. Make our wants known to the leading manufacturers in the United States and give us their addresses."



empty. The New South corn mill has the most successful cleaning arrangement ever placed on a corn mill. It has a double wire screen hinged in a casing which forms the shoe, and should it become necessary to re-



move any obstruction in the shoe, the screen can be instantly lifted, while the mill is running, and the obstruction removed without interfering with the oper-

Bicycles, Motor Cycles, Accessories, Etc.

Albert Harman Company, manufacturers of cycle and motor materials, tools and hardware sundries, 26 Hamiltion Road, Highbury, London, England:

"We enclose \$6.50 for annual subscription. We are desirous of obtaining agencies of American manufacturers, principally in following: Complete cycles; cycle bells; cycle lamps; cycle parts and accessories; motor lamps; motor parts (no motor cars); tools for cycle and motor use, such as wrenches, pliers, etc.; hardware (domestic only); small arms for sporting use; sport goods, or any suitable line for big consumption. If American manufacturers will take advantage of the favorable opportunity now offered they will establish themselves in the United Kingdom and Europe generally, as opportunities such as the present will not occur again. It would assist them if they would arrange with shipping firms to keep the freight rates as nearly at normal rates ruling in ordinary times as possible. We have read numerous remarks about the cause of the high rates. There is, in our opinion, not the slightest reason to charge such high rates, charges which will greatly injure American business interests now and later if not put down to a moderate level. We shall do our utmost to assist American manufacturers to get their goods introduced here, as we feel sure that, quality for quality, American goods are preferred if terms are such as approved here, viz., 2½ per cent. 30 days after delivery, with carriage paid to customers' store."

Wanted for Egypt's Trade.

Gregoire Coudopoule & Co., importers and exporters, Alexandria, Egypt:

"We would like to be agents for American firms, but conditions and terms which they make hamper our work. However, we ask you to place before your people some of our wants. We are in a position to introduce all kinds of American products, but we prefer to handle stockings; underwear; morocco skins; machine oils; culinary oil; cords and rope; carpets; bed covers; machinery; varnish; perfumery; alimentary articles; liquors; all kinds of paper; waxed cloths; linoleum; shoe polish; shoes; etc. The goods will be paid for c. i. f. at Alexandria or upon receipt of documents, or according to any special agreement. It would be difficult to deal separately with each house, and we think it preferable to get in contact with exporting houses or commissionners. We are prepared to furnish any article of Egyptian or Grecian manufacture that you might wish."

Automobiles, Motor Cycles, Etc.

C. W. A. Veditz, United States Department of Commerce, Bureau of Foreign and Domestic Commerce, 36 Avenue de l'Opera, Paris, France:

"This office has a letter from the 'Syndicat General des Grands Marchands de Cycles et d'Automobiles en France' of 59 Avenue de la Grande Armer, Paris. This is an organization numbering almost 10,000 members, all established dealers in cycles and automobiles. The president in this letter advises that many of his members are interested in possible sources of supply in the United States for cycles and automobiles and parts thereof. The desire of these dealers to enter into business relations with American manufacturers is one of the best indications this office has received of the possible market in France along these lines"

For Italy's Trade.

Ing. E. Macchi, 35 Via Mario Pagano, Milan, Italy:

"I have offers from Diamond Chain & Manufacturing Co., Indianapolis, and Warner Gear Co., Muncie, Ind. This proves your magazine is read with attention by manufacturers and represents a vehicle for extending business possibilities. Owing to American skill in trading, I suggest that people interested in exports to Europe, especially to Italy, ought to send catalogues, prices, discounts, samples, etc. They should offer c. i. f. Genoa or f. o. b. New York, which is the more convenient port for shipment to Italy." (Mr. Macchi's recent request invited correspondence relative to agencies for materials for automobiles, shop machinery, airships, etc.)

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

INCREASING SOUTHERN SPINDLES.

Total for Third Quarter of 80,000 Spindles and 672 Looms, a \$2,000,000 Investment.

With the closing of the third quarter of the year the MANUFACTURERS RECORD presents a summary of the activity in Southern cotton mill building and additions during the months of July, August and September. Again the increases of equipment for established mills exceeds to a considerable degree the machinery for new plants. The total for the third quarter is 80,000 spindles and 672 looms for sixteen companies, which calls for an investment of approximately \$2,000,000. This amount includes building construction, purchasing machinery, installing equipment, etc., for the plants or additions complete. The figures are divided as follows: Thirteen established companies to add 51,000 spindles and 672 looms, a \$1,275,000 investment; three new companies to install 29,000 spindles, a \$725,000 investment. North Carolina leads with 57,000 spindles for the three new companies and five enlarging enterprises, a \$1,425,000 investment for that State alone.

For the nine months of 1915 the spindles total 251,900 with 3842 looms, representing an investment of about \$6,297,500.

The first and second quarters of 1915 were divided as follows: January, February and March—70,900 spindles and 620 looms, a \$1,772,500 investment, 25,000 spindles and a \$625,000 expenditure being for a new enterprise, and 45,900 spindles with 620 looms, a \$1,147,500 investment, being for the additions of four established companies; April, May and June—no new companies, but additions by ten companies to extent of 101,000 spindles and 2550 looms, a \$2,525,000 investment, 69,000 spindles and 950 looms with \$1,725,000 expended being for five Georgia enterprises, besides 17,000 spindles and 1000 looms for a \$425,000 investment credited to four North Carolina plants; Alabama was credited with one addition of 15,000 spindles, about \$375,000 being the cost.

Miscellaneous news of the third quarter included the following: West Point (Ga.) Manufacturing Co. progressing with \$500,000 addition, to include 25,000 spindles and 500 looms; General Asbestos & Rubber Co., Charleston, S. C., completed its \$125,000 plant for

manufacturing asbestos textiles; Revolution Cotton Mills, Greensboro, N. C., began installations of machinery for its \$1,250,000 enlargement, which will have 40,000 spindles and 1200 looms; Hillside Cotton Mills, Lagrange, Ga., progressing with \$500,000 plant to contain 21,000 spindles and accompanying machinery; William A. Lee, Augusta, Ga., progressing with construction of mill to be equipped with electric-driven machinery for manufacturing oil-press cloth. These enterprises were heretofore detailed and included in previous summaries.

Efird and Wiscassett Mill Additions.

The Efird Manufacturing Co. and the Wiscassett Mills Co., Albemarle, N. C., each reported last week as to build \$500,000 additional mills, will together provide for enlargement to be equipped with about 35,000 spindles and accompanying machinery for manufacturing cotton yarn. Holdbrooks & Bradshaw, Salisbury, N. C., have received contracts to erect the additional buildings, all of regular mill construction, which may be briefly described as follows: For the Efird plant, two stories, 360x107 feet; for the Wiscassett plant, 33x107 feet; also 107x56-foot two-story picker-room and 150x80-foot one-story winding-room.

Textile Notes.

H. M. Clark, Bowersville, Ga., is considering establishment of \$25,000 knitting mill.

Shelbyville (Tenn.) Cotton Mills, capital stock \$100,000, incorporated by Wm. J. McGill, Henry B. Cowan, John D. Hutton, W. A. Frost and T. M. Greer, will install electric drive, obtaining the electricity from Tennessee Valley Light & Power Co.

Goodnow-Brookfield Knitting Co., Kansas City, Mo., has increased capital stock from \$100,000 to \$125,000.

H. P. Smith, Keener, Ala., is reported as to establish a cotton twine mill at Alabama City, Ala.

Hamilton Carhartt Cotton Mills, Rock Hill, S. C., is reported as to install equipment for manufacturing vegetable indigo for dyeing the company's product of cloth, which is shipped to Detroit for manufacturing overalls. Hamilton Carhartt of Detroit is this company's president and operates an overall factory in his city.

Another Road in Fort Worth.

A dispatch from Houston says that the Trinity & Brazos Valley Railway has obtained a trackage agreement with the Houston & Texas Central Railroad to enter Fort Worth, Tex., via Waxahachie. The terminal of the Fort Worth & Denver City Railway will be used.

Announcements for the third quarter of 1915 may be briefly summarized as follows:

Alabama.		Spindles.	Looms.
Name.	Location.		
*Ashcraft Cotton Mills.....	Florence .....	.....	160
Georgia.			
*Hogansville Mills.....	Hogansville	5,000	....
*Thomaston Cotton Mills.....	Thomaston	10,000	....
		15,000	....
Mississippi.			
*Stonewall Cotton Mills.....	Stonewall .....	.....	60
North Carolina.			
*Robinson Manufacturing Co.....	Charlotte	4,000	....
Norcott Mills.....	Concord	12,000	....
*Edenton Cotton Mills.....	Edenton	8,000	....
*Gray Manufacturing Co.....	Gastonia	4,000	....
Falls Manufacturing Co.....	Granite Falls.....	5,000	....
*Pauline Mills.....	Kings Mountain.....	2,000	....
Rex Spinning Co.....	Reno	12,000	....
*P. H. Hanes Knitting Co.....	Winston-Salem	10,000	....
		57,000	....
Tennessee.			
*Elk Cotton Mills.....	Fayetteville	5,000	....
*Sylvan Cotton Mills.....	Shelbyville	3,000	....
		8,000	....
Texas.			
*Postex Cotton Mills.....	Post .....	.....	102
Virginia.			
*Riverside & Dan River Cotton Mills.....	Danville .....	.....	350
Total for first quarter of 1915.....		70,900	620
Total for second quarter of 1915.....		101,000	2,550
Total for third quarter of 1915.....		80,000	672
Total for nine months of 1915.....		251,900	3,842
*Established mills enlarging.			

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Ala., Birmingham.—City Com. is considering construction of concrete bridge on 1st Ave.; estimated cost \$2700.

Fla., Bradentown.—Manatee county, Venice Road and Bridge Dist., J. W. Parder, Sarasota, Fla., official in charge, contemplates issue of \$250,000 bonds for road and bridge construction. (Bonds previously noted voted.)

Fla., Monroe.—Michael Sholtz, Daytona, and others are interested in plan to construct bridge across St. Johns River; bridge, with approach, 1500 ft. long; draw type; wooden trestle; concrete piers, estimated cost \$15,000; plans by Atlantic Engineering Co., Germania Bank Bldg., Savannah, Ga.

Ga., Doctortown.—R. D. Brantley of Blackshear, Ga.; A. F. Winn of Dorchester, Ga., and E. S. Majette of Jesup, Ga., are interested in plan to construct bridge across Morgan Lake and approach to east bank of Altamaha River, connecting Ludowick, in Liberty county, with Doctortown, in Wayne county; plans call for bridge 1400 ft. long, supported by concrete piling for 700 ft.; 1 mi. of trestle work; wooden trestles and earth fill through swamps; 225,000 cu. yds. fill; Atlantic Engineering Co., Germania Bank Bldg., Savannah, filed report estimating cost of bridge across lake at \$30,000 and approach to bank of river at \$90,000.

Ky., Lexington.—Fayette county voted \$300,000 bonds to pay county's share of cost of bridge to be constructed across Kentucky River by Fayette and Madison counties at estimated cost of \$150,000 and to construct roads. Address County Commrs. (Latest noted.)

Md., Cumberland.—Rose Hill & Ridgely Bridge Co., capital \$2500, incptd. by E. L. Williams, 10 N. Liberty St., and others; will construct cable foot bridge 320 ft. long from Rose Hill, Cumberland, to Ridgely, W. Va., across Potomac River. (See Machinery Wanted—Bridge Construction.)

Mo., Carthage.—City will construct viaduct; issue \$30,000 bonds; Hugh McIndoe, Mayor.

Mo., St. Louis.—City is reported as about to let contract to construct Chouteau Ave. viaduct; United Ry. Co. to pay \$10,000, St. Louis & San Francisco R. R. (V. K. Hendricks, Asst. Ch. Engr.) \$35,000, and Missouri

Pacific Ry. (J. R. Stephens, Ch. Engr.) \$155,000 of cost. (Noted in June.)

N. C., Wilmington.—New Hanover county will vote on \$250,000 bridge-construction bonds. Address County Commrs.

Okla., Beaver.—Beaver, Mead & Englewood R. R., J. H. Morgam, Prest., will construct 350-ft. bridge on piling; let contract Beaver Construction Co.

Okla., Oklahoma City.—Oklahoma county will construct 4 bridges; M. Cornelius, County Clerk, invites bids until Oct. 9. (See Machinery Wanted—Bridge Construction.)

S. C., Charleston.—Charleston Southern Ry. (W. R. Bonsal, Peoples Office Bldg.) plans to construct 5 draw bridges across Ashley, Stono (at 2 locations), Edisto and Ashepoo Rivers; 4 structures of swing and 1 of lift type; Ashley River bridge (lift) 2500 ft. from bank to bank; lift will remove section of superstructure and leave clear passage 80 ft. wide. Stono River bridge 1400 ft. from bank to bank; construction similar to Ashley River structure, excepting draw of swing type, and leave 60 ft. clear passage on either side central pier when open. Second structure across Stono River 330 ft. from bank to bank; 60-ft. clearway swing draw; South Edisto River bridge 1320 ft. from bank to bank; 50-ft. clearway swing draw; Ashepoo River bridge 300 ft. from bank to bank; 60-ft. clearway swing draw. Company plans many minor spans across lesser streams, also trestle work; lately noted letting contract Charleston Engineering & Contracting Co. to build trestle and foundation for bridge across Stono River; Simons-Mayrant Co. for similar work on Stono River and Dawson Engineering Co. for similar work on Edisto River; all of Charleston; Jefferson Construction Co., New Orleans, La., to construct trestles and foundation for lift bridge across Ashley River.

N. C., Winston-Salem.—Norfolk & Western Ry., J. E. Crawford, Chief Engr., Roanoke, Va., reported to build long steel viaduct in connection with reported \$500,000 union station.

Tex., Galveston.—Galveston county may grant franchise on lately-noted proposition for bridge; Bartholow-Willits Engineering Co. proposes erection at cost of \$40,000; bridge 6000 ft. long and 16 ft. wide between mainland and Galveston Island; pile trestle

highway toll bridge for vehicle traffic for use pending reconstruction of causeway.

Va., Hampton.—Elizabeth City county will construct 3 concrete bridges — Holson's Bridge over Long Creek, 16 ft. long; Hawkins Bridge over Long Creek, 16 ft. long; bridge over Tidewater Creek, 31 ft. long; bids until Oct. 27; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted—Bridge Construction.)

CANNING AND PACKING PLANTS

Fla., St. Petersburg.—J. M. Lassiter, P. O. Box 778, proposes installation small canning equipment. (See Machinery Wanted—Canning Machinery.)

N. C., Warrensville.—Buffalo Packing Co. (lately noted incptd., capital \$50,000) will operate plant noted in July; has 2-story-and-basement 65x50-ft. mill-construction building; will install barrel, packing, canning and flour-mill equipment; has purchased boiler, engine and pumps; will purchase flour-mill equipment; C. W. Miller, Prest.; A. A. Price, V.-P.; W. H. Jones, Act. Secy.; W. H. Worth, Treas.; E. P. Robinson, Mgr. (See Mch. Wntd—Flour Mill.)

W. Va., Huntington.—West Virginia Brewing Co. will expend \$50,000 to remodel brewery as packing plant; erect additional buildings, etc.; daily capacity, 300 hogs and large number of cattle.

COAL MINES AND COKE OVENS

Ala., Seales.—The Alabama Co., Birmingham, will increase output; now making new opening at tipple, Seales mine; will provide daily capacity 1900 to 1500 tons coal.

Ark., Little Rock.—United States Coal Co., capital \$20,000, incptd. to develop coal mines; C. C. Woodson, Prest., Huntington, Ark.; Geo. E. Dodson, V.-P., Denning Ark.; A. L. Cotham, Secy.; W. T. Satterfield, Treas., both of Little Rock.

Ga., Springfield.—Springfield Fuel Co., capital \$5000, incptd. by R. L. Elkins, J. M. Tillman and others.

Ky., Artemus.—Jackson Coal Mining Co., capital \$30,000, incptd. by D. H. Jenkins, John K. Boyd, L. C. Warwick and others, all of Knoxville, Tenn.; will develop coal mines; daily capacity 400 to 500 tons coal.

Ky., Calvin.—Mason Steam Coal Co., capital \$10,000, incptd. by J. A. Hurst, J. E. Adair and S. S. Hurst.

Ky., Middlesboro.—John Krieger of Jellico, Tenn., is reported to have leased old Queensbury coal mines near Middlesboro and to reopen for further development.

Tenn., Newcomb.—Italian Blue Gem Coal Co., R. B. Baird, Prest., Jellico, Tenn., plans issuing \$100,000 preferred stock for additional developments; 5000 acres land carrying 7 veins of coal and 4 veins of clay; 3 leasing companies now operating with daily capacity 600 tons coal.

W. Va., Lex.—Rocky Branch Pocahontas Coal Co., Box 22, Welch, W. Va. (lately noted incptd., capital \$5000), organized; G. B. Hopkins, Prest. and Mgr.; J. A. Thorn, V.-P.; H. J. Brook, Secy.-Treas.; has 1500 acres; under development for daily capacity 150 tons; considering installation of electrical equipment.

W. Va., Logan.—Lunsdale Coal Co., capital \$200,000, incptd. by Geo. W. Jones of Red Star, W. Va.; Geo. M. Jones of Oak Hill, W. Va.; A. W. McDonald, V. E. Black and C. P. Fitzpatrick, all of Charleston, W. Va.

W. Va., Raleigh County.—Wm. Leckle of Welch, W. Va., acquired 2400 acres coal land on Piny Creek and will develop.

CONCRETE AND CEMENT PLANTS

Mo., Joplin.—Thling.—John L. Zeldler of St. Joseph, Mo., is reported as considering establishment of concrete tile plant.

COTTON COMPRESSES AND GINS

S. C., Leeds.—C. B. McCallum will rebuild cotton gin and sawmill lately reported burned.

Tex., Tuleta.—Tuleta Gin Co., capital \$6000, incptd. by August Zunker, Peter Unsicker and O. M. Poff.

DRAINAGE SYSTEMS

Fla., Elkton.—St. John County Commrs., St. Augustine, Fla., authorized Seth Perkins & Sons of St. Augustine to transfer contract aggregating \$8171.80, to construct Elkton drainage canal to Bryson & Bryson of Jacksonville, Fla.; drain lands for farming; canal 4 1/2 mi. long; bottom width 12 ft. at upper end and 24 ft. at lower end; depth to vary from 3 to 5 ft.; Peter Kendrick, Engr. (Commrs. noted in July as having let contract to Seth Perkins & Sons.)

Fla., Zellwood.—Zellwood Florida Farms Co., A. E. Hartcom, Prest., Grand Central Terminal Bldg., New York, proceeding with previously-described drainage of about 20,000 acres in Lake and Orange counties; contractor, Furst-Clark Construction Co., 1515 Fidelity Bldg., Baltimore, Md., has completed 3 mi. dredging in canal, to be 7 ft. deep, 27 ft. wide at top; work to be completed within 1 year; 15 mi. of canals; cost about \$300,000; also construct small drainage ditches and roads on section and half-section lines, docks for water transportation, etc., at further cost; J. O. Wright, Jacksonville, Fla., Ch. Engr.

Ky., Henderson.—Henderson County Drainage Commrs., Peter Manion, Prest., will complete double dam ditch system north of Green River, including Hubsey Prong, McGovern Prong and Hey Pond Prong; bids until Oct. 9. (See Machinery Wanted—Canal Construction.)

Ky., Henderson.—Henderson County Drainage Commrs., Peter Manion, Prest., will construct East Fork of Canoe Drainage Ditch about 4 mi. southwest of Henderson; length 34,810 ft.; 169,682 cu. yds. excavation; bids until Oct. 27. (See Machinery Wanted—Canal Construction.)

Miss., Silver City.—Atchafalaya Drainage & Levee Dist., B. L. Campbell, Secy., will construct 15 mi. of canals, requiring 407,000 cu. yds. excavation and 90,000 cu. yds. levee work; bids until Oct. 22; M. H. Brewer, Engr., Silver City. (See Machinery Wanted—Canal Construction, etc.)

Mo., Carrollton.—Sugar Creek Drainage Dist. Commrs., E. H. Quisenberry, Clerk, will probably soon let contract to dredge about 16 mi. open ditch.

Tex., Edna.—Jackson County Drainage Dist. No. 8 will construct canals and levees, straighten and clean watercourses, etc.; Drainage Commrs., A. E. Landin, Chrmn., receive bids until Oct. 28; work consists principally of about 75 mi. of ditches; yardage about 317,000; area of district 22,762 acres; R. J. Bryan, Dist. Engr., Ganado, Tex. (See Machinery Wanted—Drainage System.)

Tex., Waxahachie.—Ellis County Levee Improvement Dist. No. 2, W. D. Farris, Secy., will construct about 16 mi. levee; average fall per mi. 1 1/2 ft.; bond issue \$120,000; Engr., O. W. Linley, Ennis, Tex.; total average of district 12,755 acres. (Bonds lately noted voted.)

ELECTRIC PLANTS

Ark., Gurdon.—F. E. Wright is reported as to install electric-light plant in theater.

Ark., Earle.—Earle Light, Water & Ice Co., capital \$15,000, incptd. by Louis Barton, W. B. Rhodes, I. E. Freeman and others.

Ark., Gravette.—City Council is considering plan to install engines in electric-light plant and water-works. Address The Mayor.

Ga., Acworth.—City will construct electric-light plant and water-works. Address The Mayor.

Ga., Nicholls.—Public Utility Co., Waycross, Ga., will install electric-light plant and water-works; equipment to include 50 H. P. crude or kerosene engine to be used in connection with 35 K. V. A. 3-phase 60-cycle 2300-volt generator (beltd); also deep well pump, capacity 30 gals. per min., connected (beltd) to above engine, and water tank of from 18,000 gals. to 20,000 gals. capacity; now receiving estimates.

Mo., Bismarck.—Bismarck Electric Light & Power Co., capital \$12,000, incptd. by G. A. and F. F. Wahl and C. F. Starck.

Mo., Slater.—City invites bids to furnish and install 250 K. V. A. 60-cycle 3-phase 2300-volt alternator with exciter directly connected to 300 H. P. engine; bidders to furnish their own specifications and guarantees; J. A. Stern, City Clerk.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Okl., Langston.—Negro Agricultural and Mechanical College will rebuild light and heating plant lately noted burned; J. G. Ball, Chrmn. of Board.

S. C., Walhalla.—Comms. of Public Works will build electric-light plant; plan to purchase and install two 25 H. P. Diesel engines and accompanying equipment.

Tex., Atlanta.—Atlanta Electric & Ice Co. contemplates installing equipment in electric-light plant.

Tex., Celeste.—T. J. Vines & Sons will rebuild electric-light plant lately noted burned.

Tex., Denison.—Texas Power & Light Co., Dallas, Tex. (American Power & Light Co., 71 Broadway, New York), has not formulated definite plans for design steam power electric plant on Red River near Denison; construction has not yet been authorized. (Previously reported as to build \$500,000 electric station.)

Tex., Palestine.—Texas Power & Light Co., Dallas, Tex. (American Power & Light Co., 71 Broadway, New York), is proceeding with Palestine plant improvements; completed brick building addition, steel-frame engine-room, etc.; installed two 300 H. P. boilers; engine-room designed for possible future installation of Diesel engines; for the present only a 350 K. W. Diesel engine is in position; removed old steam engines and turbine and rearranged them in new room, besides installing additional 300 K. W. turbine removed from another of company's plants; steam units already operating in new location; expect soon to operate Diesel unit. (Palestine improvements previously mentioned.)

W. Va., Hinton.—Virginia-Western Power Co., Wm. G. Mathews, Pres., Clifton Forge, Va., is reported as contemplating erection of supplementary steam-electric plant near Hinton and to furnish various towns with electricity.

W. Va., Kenova.—Ohio Valley Electric Ry. Co. of Huntington (operated by Consolidated Heat, Light & Power Co.) is proceeding with previously noted power station installation; 6750 K. W. turbo-generator, 80 per cent. power factor—3-phase 60-cycle, wound for 11,000 volts direct; Wheeler surface condenser with 14,000 sq. ft. tube surface; De Laval turbo-driven centrifugal pump, 10,000 gals. per min. capacity, and 2-stage Wheeler pump operated by De Laval turbine installed in hot well. (Contract for generator noted in June as let to General Electric Co., Schenectady, N. Y.)

FERTILIZER FACTORIES

Ark., Argenta.—Commercial Acid Co., 3943 Duncan Ave., St. Louis, Mo., has contract to construct sulphuric-acid plant.

FLOUR, FEED AND MEAL MILLS

Ark., Cabot.—James W. Wilson and T. G. Ringgold are interested in proposed establishment of flour mill.

Ark., Wynne.—J. C. Mebane contemplates installing new process bolting system in mill.

Ga., Jesup.—L. Carter contemplates establishing flour mill.

Ky., Bee Spring.—Bee Spring Mill Co. let contract Sprout, Waldron & Co. of Muncy, Pa., to rebuild plant; includes installation of bolting and scouring machinery, reels, middlings mill, etc.

Ky., Morehead.—Hall Bros. Milling Co. organized; will install flour mill.

Md., Cumberland.—Tannery.—Union Tanning Co. will erect boiler-house; brick; corrugated iron or tin roof; Geo. Kraft and Zlich Co., Contrs.

Mo., Edina.—S. P. Coleman contemplates establishing 100-bbl. flour mill.

Mo., St. Louis.—Donnell Mill Co., capital \$15,000, inceptd. by E. J. Donnell, P. J. Breckinridge and J. F. Donnell.

N. C., Shelby.—C. A. Washburn is reported to build corn mill.

N. C., Dunn.—G. F. Pope is reported to build flour mill.

N. C., Warrensville.—Buffalo Packing Co., G. W. Miller, Pres., and E. P. Robinson, Mgr., will install flour mill. (See Canning and Packing Plants; also Machinery Wanted—Flour Mill.)

Okl., Ardmore.—Wm. O. T. Comer and others are promoting erection of flour mill.

Okl., Wagoner.—J. A. Orton Co. is interested in establishment of 50-bbl. "midget" mill, with corn and feed mill in connection.

Tenn., Dyersburg.—Ewell Milling Co., M. W. Ewell, Pres., leased building; will install flour and meal mill; machinery ordered.

Tex., Glen Cove.—Perry & Allen will install midget flour mill of 25 bbls. daily capacity, and corn mill.

Tex., Bonham.—Steger Grain Co. increased capital stock from \$30,000 to \$100,000; is reported as having decided upon 500 bbls. flour daily capacity for mill mentioned in August.

FOUNDRY AND MACHINE PLANTS

Ala., Birmingham.—Cotton Gins.—Continental Gin Co. will build addition to plant in East Birmingham; cost \$10,000.

Ala., Birmingham.—Machinery.—Steward-Witherill Machine Co., capital \$20,000, incorporated; will continue plant at 11th St. and 1st Ave.; Chas. C. Steward, Pres.; Roy A. Witherill, V.-P.; Ellis S. Witherill, Secy.-Treas.

La., Shreveport.—Iron Works.—W. K. Henderson Iron Works & Supply Co. will rebuild portion of plant damaged by fire to the extent of \$40,000 to \$50,000; let contract to Garson Bros. for building.

Mo., St. Charles.—Oil Engines.—St. Mary's Oil Engine Co. (lately noted inceptd., capital \$300,000) organized; J. D. Anderson, Pres. and Mgr.; J. C. Wilbrand, V.-P.; W. H. Gillett, Secy.; occupies 250x30-ft. machine shop and 160x70-ft. foundry, of fireproof construction.

Tenn., Chattanooga.—Stoves.—Mascot Stove & Mfg. Co., Dalton, Ga., leased Mountain City Stove & Mfg. Co.'s plant and will operate. (Lately noted to rebuild in Chattanooga its Dalton plant burned at loss of \$15,000 and to increase capital to \$50,000.)

W. Va., Point Pleasant.—Foundry.—Marietta Mfg. Co., Marietta, O., will build foundry plant.

GAS AND OIL ENTERPRISES

Fla., Wakulla.—Company is being organized by B. M. Cates, R. O. Collins, Chas. Williams and A. A. Burns to drill for oil.

Ky., Hickman.—Reelfoot Lake Oil Co., capital \$50,000, inceptd. by E. B. Samuels, W. D. Ward, Ed. Williams and R. B. Platt, all of Clinton, Ky.; will develop oil wells near Reelfoot Lake.

La., Kinder.—Allen Parish Oil & Gas Co., capital \$30,000, inceptd.; leased 6600 acres and plans drilling for oil; S. M. Scott, Pres., Oakdale, La.; R. C. Aman, V.-P., Winnfield, La.; L. M. Lafleur, Secy.-Treas., Kinder.

La., Shreveport.—Planters Oil & Gas Co., capital stock \$30,000, inceptd. to develop oil and gas land; W. M. Ledbetter, Pres.; John Woodley, V.-P.; Leland B. Baird, Treas.; E. B. Hands, Secy.

Md., Baltimore.—Oil Refinery.—Virginia Products Co., 3d Ave. and 8th St., Canton, will receive estimates from following contractors on erection of storeroom: Chas. L. Stockhausen Co., Marine National Bank Bldg.; Price Concrete Construction Co., 225 St. Paul St.; G. Walter Tovell, Eutaw and McCulloh Sts.; R. B. Mason, 225 St. Paul St.; structure will be 1 story and basement; 40x110 ft.; wing 40x40 ft.; brick and reinforced concrete; slag roof; concrete floor; fire doors; cost about \$8000; Parker, Thomas & Rice, Architects, 1109 Union Trust Bldg. (Lately noted.)

Okl., Drumright.—Oil Station.—Western Oil Station Co., Sapulpa, Okla., will build branch station; W. L. Melvin, Tulsa, Okla., to be Mgr.

Okl., Muskogee.—Gas Pipe Line.—City voted \$350,000 bonds to purchase supply of natural gas and pipe it to Muskogee for manufacturing purposes. Address City Commissioners. (Lately noted.)

Okl., Muskogee.—Calconna Oil & Gas Co., capital \$15,000, inceptd. by E. M. May, M. G. Young, G. F. Engel and others.

Okl., Nardin.—Nardin Oil & Gas Co., capital \$10,000, inceptd. by W. T. Rucker, A. R. Havens and J. R. Mahaffey, all of Nardin, and J. C. Blackaby of Blackwell, Okla.

Okl., Newkirk.—Krikwen Oil Co., capital \$10,000, inceptd. by Almond R. Miller, John J. Cronan and Sam H. Stevens.

Okl., Okmulgee.—Huck Oil Co., capital \$10,000, inceptd. by E. W. Kimbley, Frank King and A. R. Winfrey.

Okl., Tulsa.—Demont Oil & Gas Co., capital \$10,000, inceptd. by L. R. Wilson, R. E. Fenton and Marshall Wilson.

Okl., Tulsa.—Cayuga Oil Co., capital \$12,000, inceptd. by Sam K. Todd, John D. Todd and O. S. Booth.

Tex., Austin.—Montezuma Oil Co., capital \$30,000, inceptd. by J. Bouldin Rector, H. B. Barnhart, A. E. Hancock and E. B. Baile.

Tex., Bryan.—Round Lake Oil & Gas Co., capital \$100,000, inceptd. by C. S. Gainer, W.

H. Oliver, Jordan T. Lawler and W. L. Melton.

Tex., San Antonio.—Fuchs Oil Co. increased capital from \$5000 to \$25,000.

Tex., San Antonio.—Panama Oil Co., capital \$50,000, inceptd. by J. T. Marra, G. M. Ryan, C. C. Mull and others.

Tex., San Antonio.—Diana Oil Co., capital \$20,000, inceptd. by C. U. Yancey, H. T. Matthews and J. M. Thornton.

Tex., Victoria.—Rio Vista Improvement Co. will incorporate company with \$16,000 capital stock; drill for oil on 4-acre tract.

W. Va., Charleston.—Kanawha River Gas Co., capital \$25,000, inceptd. by U. C. Myers, A. S. Thomas, Geo. E. Thomas and others.

W. Va., Clarksburg.—J. E. Doman Oil Co., J. E. Doman, Pres. and Gen. Mgr., 114 Chapel St. (lately noted inceptd., capital stock \$50,000) will drill 4 wells; use 13, 16, 8 and 6-in. piping; natural gravity flow; J. M. Cochran, Porter Falls, W. Va., Engr. (See Mch. Wntd.—Piping.)

W. Va., Marshall County.—Laramie Oil & Gas Co., capital \$50,000, inceptd. by C. S. Cochran, C. M. George, J. R. Paul and others, all of Pittsburgh, Pa.

ICE AND COLD-STORAGE PLANTS

Ala., Montgomery.—Kratzer Ice-Cream Co. will install 20-ton daily capacity ice plant in present ice-cream factory. (See Miscellaneous Enterprises.)

Ark., Earle.—Earle Light, Water & Ice Co., capital \$15,000, inceptd. by Louis Barton, W. B. Rhodes, I. E. Freeman and others.

Md., Easton.—Imperial Ice-Cream & Creamery Co. (G. H. Patchett and others) will establish creamery to include 15-ton refrigerating plant and 3 cold-storage rooms, one for ice-cream with capacity 1000 gals., larger one for milk and butter, and third with capacity for 2000 lbs. apples or equivalent. (See Miscellaneous Enterprises.)

Md., Winthrop.—Government let contract Central Construction & Supply Co., 221 Arch St., Philadelphia, Pa., to build ice plant at Naval Station.

Va., Roanoke.—Citizens' Crystal Ice Co. increased capital stock from \$150,000 to \$300,000.

IRON AND STEEL PLANTS

Ala., Gadsden.—Steel Plant.—Gulf States Steel Co., James Bowron, Pres., Birmingham, will expend within \$57,000 for improvements to finishing mills; to include installing additional heating furnace at rod mill, involving 2 gas producers and hydraulic pusher; also extend galvanizing department building about 300x40 ft. and add third set of annealing galvanizing pans with motor, reeling frame, etc.; has awarded contracts.

Md., Baltimore.—Steel Furnaces.—Henry Hess, Witherspoon Bldg., Philadelphia, Pa., will organize company capitalized at \$375,000 to build steel plant; proposes installation 2 electric furnaces, rolling mills, etc., for production high-grade alloy steel billets, finishing product, etc., for fine machine work; electric power throughout; has ordered machinery; has options on waterfront sites for plant; Baltimore capitalists have subscribed \$250,000 to capital. (Hess Steel Co., Bridgeton, N. J., Henry Hess, interested, previously mentioned as proposing to build Baltimore steel plant, etc.)

Mo., St. Louis.—Iron Furnace.—Superior Iron & Furnace Co., capital stock \$100,000, inceptd. by A. Alfred Laurie, C. A. Burton and W. H. Belt; to operate blast furnace.

Va., Low Moor.—Iron Furnace.—Low Moor Iron Co.'s furnace was blown in last April; therefore, recent report as to blowing in was erroneous.

LAND DEVELOPMENTS

Ala., Anniston.—Woodstock Iron Works Co. will develop 25,000 acres in Calhoun and contiguous counties; divide into small farms.

Ala., Birmingham.—Hub Improvement Co., capital \$10,000, inceptd.; Frank Nelson, Jr., Pres.; Carl Steiner, V.-P.; Richard W. Massey, Secy.-Treas.

Tex., Asherton.—Chas. Schreiner of San Antonio and Kerrville, Tex.; Ed. Rand, Adolph Wagner and associates purchased 19,000 acres land west of Asherton; reported as planning developments.

Fla., Jacksonville.—J. F. Pierce of Ashland, Ky., and others purchased 2300 acres land about 60 mi. south of Jacksonville; will organize company with \$30,000 capital to undertake development; will build town on 60-acre tract; also develop farm land.

Mo., University, Station St. Louis.—Pittman's Co. of Surveyors and Engineers, St.

Louis, let contract Frulin-Colton Contracting Co., St. Louis, to grade Lewis tract in University; about 600,000 cu. yds.; estimated total cost \$100,000; grading in connection with development of subdivision to be known as University Park.

N. C., Asheville.—Ashe Cemetery Assn. will extend cemetery; lay out sections; build roads; plans by E. Burton Cooke, Atlanta Trust Bldg., Atlanta, Ga., ready Oct. 15.

N. C., Lillington.—Elsmith Land Co., capital \$300,000, inceptd. by T. L. Riddle, J. W. Cunningham and H. P. Edwards.

S. C., Clemson College.—Fort Hill Land Co., capital \$4200, inceptd. by Hale Houston, R. F. Robertson, F. H. Clinkscales and W. W. Rounton.

S. C., Gaffney.—Victoria Land & Improvement Co., capital \$30,000, inceptd. by F. B. Gaffney, W. W. Gaffney and L. Victor Gaffney.

Tenn., Nashville.—Lynden Realty Co., capital \$20,000, inceptd. by Johnson Bransford, Geo. T. Hutchison, Joan E. Bouchard, Jr., and others.

Va., Hopewell.—Hopewell Heights Development Co., capitalization \$50,000, organized; A. Sachs, Pres.; H. G. Leigh, V.-P.; C. Fisher, Secy.-Treas.; all of Petersburg, Va.

Va., Norfolk.—Piedmont Corp., capital \$10,000, chartered; C. A. Mowry, Pres.; H. L. Lowry, Secy.-Treas.

W. Va., Huntington.—Buena Vista Land Co., capital \$30,000, inceptd. by H. C. Hale, John S. Sheppard, H. K. Eustler and others.

LUMBER MANUFACTURING

Arkansas.—W. S. Elder of Brownville, Tenn., purchased timber land in Saline River Valley of Arkansas and will manufacture hickory stumpage.

Ky., Pike County.—W. J. Fell Co. of Ashland, Ky., purchased 41,000 trees in waters on Shelby Creek in Pike and Letcher counties; will manufacture timber into barrel staves and ship to plant at Ashland to be finished.

La., Kinder.—Peavy-Hynds Lumber Co. will rebuild sawmill reported burned.

Miss., McComb.—Amite Lumber Co. organized; Pres.-Mgr., L. Z. Dickey, Pres.-Mgr. of Dickey Lumber Co.; Secy., Geo. T. Brown; Treas., Wm. McColgan; purchased (from Central Lumber Co., Brookhaven, Miss.) land estimated to contain 20,000,000 ft. timber; intends to build sawmill, but has not decided location. (Lately noted inceptd. with \$30,000 capital stock.)

Miss. Meridian.—Usher Bros. Lumber Co. will rebuild planing mill reported burned at loss of \$9000.

Mo., Joplin.—Pickrel Lumber Co. of St. Louis leased building at 12th and Illinois Ave.; will install sawmill and other machinery to manufacture black walnut wood products; produce 100,000 ft. dimension lumber per month; Hans Glaeser to be local manager.

N. C., Crestmont.—Champion Lumber Co. will build plant.

N. C., Fasco.—Boone Fork Lumber Co., Elizabethton, Tenn., will establish mill to manufacture hardwood; daily capacity 40,000 ft.; considering purchase of used mill; under Tenn., Elizabethton, noted in May as organized, capital stock \$35,000, with W. S. Whiting, Pres., and C. K. Heywood, Secy.-Treas., both of American National Bank Bldg., Asheville, N. C. (See Machinery Wanted—Sawmill.)

N. C., Hertford.—Albemarle Lumber Co. will rebuild six drykilns reported burned; loss, including lumber, etc., reported as \$20,000.

N. C., Southport.—Benjamin-Graham Lumber Co. of Salisbury, Md., purchased timber land and will develop; will install 2 sawmills; equipment purchased.

S. C., Leeds.—C. B. McCallum will rebuild sawmill and cotton gin lately reported burned.

Tenn., Chattanooga.—G. H. Evans (Pres. G. H. Evans Lumber Co.) purchased plant of King-Baxter Lumber Co. and will organize company with \$100,000 capital; operate planing mill; manufacture box shooks and hardwood flooring.

Tenn., Klondike.—Bollinger Milling & Mfg. Co. will add sawmill with daily capacity 5000 ft. lumber. (See Machinery Wanted—Sawmill; Rails; Wire Rope; Belting.)

Tenn., Memphis.—Walnut Log & Lumber Co., capital \$10,000, inceptd. by B. M. Hines, J. H. Hines, J. Q. Marshall and others.

Tenn., Memphis.—Mark H. Brown Lumber Co. changed name to Brown & Hackney Co. and increased capital from \$20,000 to \$100,000.

METAL-WORKING PLANTS

Mo., North Kansas City—Cans.—American Can Co. (New York office, 447 W. 14th St.) let contract R. F. Wilson & Co. of Chicago to build factory; fireproof; 113x267 ft.; 4 stories and basement; estimated cost \$390,000. (Noted in June.)

W. Va., Dunbar—Vacuum Cans, etc.—American Vacuum Can Co. will be inceptd. with \$400,000 capital by U. G. Fletcher and Fred Paul Grosseup to manufacture vacuum cans and metal containers; LeSieur patents. Mr. Grosseup wires Manufacturers Record: "Works to be 150x200 ft.; brick and steel construction; cost \$25,000; capacity 1000 cans daily; cost of machinery \$50,000." W. T. Moore, Treas. of Dunbar Land Co., writes to Manufacturers Record: "We have 2-story 100x75-ft. building; cost \$10,000; expect to turn this over to can factory and to erect addition 200x100 ft., 1 story, brick and steel construction, to cost \$10,000."

MINING

Mo., Webb City—Lead and Zinc.—Athletic Mining & Smelting Co., capital \$100,000, organized by C. T. Orr, C. F. Orr, R. O. Scurlock, A. G. Young and others; succeeds Athletic Mining Co.; reported to build smelting plant.

Okla., Commerce—Croesus Mining Co. (C. W. Day of Tulsa and others) will build 200-ton mill. (Lately reported inceptd. under Tulsa with \$200,000 capital.)

Okla., Commerce—Bethel Mining Co. incorporated with \$200,000 capital; will build mill.

S. C., Paeolet—Marble.—Paeolet Building & Monumental Quarry Co., capital \$40,000, incorporated; Geo. B. Slason, Pres.-Treas.; R. A. Seales, V.-P.; E. J. Silson, Secy.

Tenn., Centerville—Phosphate.—Bone Phosphate Co. will be organized by S. M. Ward, 201 W. Church St., Nashville, Tenn., to develop lately-noted phosphate mines; daily capacity 200 tons; will install machinery. (See Machinery Wanted—Mining (Phosphate) Machinery.)

Tenn., Ducktown—Copper.—Tennessee Copper Co., 2 Rector St., New York, votes Oct. 18 upon authorizing \$5,000,000 bonds; \$2,000,000 to be offered immediately to provide for increase of demand for company's product, requiring extensions and additional equipment; understood these improvements are necessary because of large contracts for chemicals used in manufacturing high explosives. (Lately reported planning bond issue, plant extensions, etc.)

Tex., Culberson County—Sulphur.—W. A. Doyle, Ralph Eastman and E. J. Russell, Dallas, Tex., are reported to develop sulphur mines.

Tex., Culberson County—Sulphur.—Geo. A. Plummer, Port Arthur, Tex., plans to develop sulphur deposits in northeastern part of Culberson county; is reported as expecting to install \$375,000 plant for daily production 100 to 500 tons sulphur; sink steam and discharge pipes 50 to 100 ft.

Va., Wytchville—Iron.—J. R. Short is reported to develop iron-ore deposits.

MISCELLANEOUS CONSTRUCTION

Fla., Pensacola—Coal Pier.—Gulf, Florida & Alabama Ry., 35 Pine St., New York, G. A. Berry, Ch. Engr., Pensacola, is preparing to begin construction of coal pier; has let contract to Link-Belt Co., Chicago, Ill., and Philadelphia, Pa., to construct mechanical equipment; latter to include installation for first unit of pier; hourly capacity 600 tons coal; by installation of 2 additional units can increase hourly capacity of single tower to 1800 tons. (Lately mentioned.)

Fla., Pensacola—Coaling Dock.—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky., will construct coaling dock; hourly loading capacity 400 tons; duplicate hoist, electrically-driven coaling device.

Ga., Toccoa—Heating System.—City let contract W. O. Burns of Griffin, Ga., at \$2792 to furnish and install steam-heating system for 2 school buildings.

Md., Baltimore—Coal Pier.—A. C. Shand, Ch. Engr. of Pennsylvania Railroad Co., Broad Street Station, Philadelphia, Pa., wires Manufacturers Record his company has let contract to Arthur McMullin Co., Singer Bldg., New York, to construct coal pier at Canton; to cost about \$1,000,000; let contract to American Bridge Co., 30 Church St., New York, for 750 tons structural steel required for this construction; pier to be 935 ft. long by 66 ft. wide, accessible from each side, of steel and concrete construction; will have 10-hour capacity 6000 tons

coal; Maryland Dredging Co., 1515 Fidelity Bldg., is proceeding with its contract to dredge 235,000 cu. yds., excavate 40,000 cu. yds., drive 1500 piles, etc., preliminary to sewer construction. (Recently mentioned.)

Miss., Silver City—Levee.—Atchafalaya Drainage and Levee Dist., B. L. Campbell, Secy., will construct 90,000 cu. yds. levee work; bids until Oct. 22; M. H. Brewer, Engr., Silver City. (See Drainage Systems.)

Miss., Vicksburg—Levee.—Comms. Third Mississippi River Dist., J. R. Slattery, Maj., Engrs., recommended bid of Frank T. Constant, Alexandria, La., to close Jackson crevasse in Red River, aggregating 140,000 yds. levee.

Mo., Harrisburg—Revetment.—Government let contract Kansas City Bridge Co., Orear-Leslie Bldg., Kansas City, at \$106,340 to construct about 13,000 ft. standard revetment on Missouri River about 2 mi. from Harrisburg. (Call for bids lately noted.)

N. C., Durham—Wall.—Trinity College let contract to construct granite wall around campus; 36 in. high; 15 in. wide. (Noted in July.)

Tenn., Chattanooga—Wharf.—City will issue \$100,000 bonds to improve city wharf; has legislative authority; Robt. Hooke, City Engr. (Noted in May.)

MISCELLANEOUS ENTERPRISES

Ala., Montgomery—Dairy.—Kratzer Ice Cream Co. will build dairy; 2 stories; stone front; 55x100 ft.; first floor for milk depot; second for apartments; steam and refrigeration to be supplied by machinery in present building; install 20-ton daily capacity ice plant in present ice-cream factory.

Fla., Palmetto—Contracting.—Palmetto Construction Co., Palmetto State Bank Bldg., organized; E. W. Stoltz, Gen. Mgr.; J. R. Helms, Secy.-Treas.; A. C. Price, Archt.; general contracting. (See Machinery Wanted—Building Materials, etc.)

Ky., Somerset—Publishing.—News Publishing Co., capital \$5000, inceptd. by Thos. W. Owsley, W. R. Warren and Virgil McLure.

La., Shreveport—Navigation.—Red River Navigation Co., capital \$50,000, inceptd. by W. K. Henderson, O. A. Wright, J. C. Abel, F. D. Lee and others to operate line of barges on Red River between New Orleans and Shreveport. (Mr. Wright and others lately reported as organizing company to operate barge line on Red River.)

Md., Cumberland—Fire-alarm System.—Jos. S. Schriver, Water and Light Commr., considering plans to reconstruct fire-alarm system and install additional call boxes.

N. C., Elizabeth City—Steamship Line.—Edenton & Chowan Steamboat Co., capital \$50,000, inceptd. by A. S. Foreman, A. S. Daniels and R. E. Black.

Okla., Sapulpa—Construction.—Sapulpa Construction Co., capital \$2400, inceptd. by C. F. Hopkins of Sapulpa, J. A. Frates of Springfield, Mo.; Frank Brown, Independence, Kans., and others.

S. C., Charleston—Fire Equipment.—The Fire & Equipment Co., capital \$5000, inceptd.; W. K. McDowell, Pres.-Treas.; Wm. Burgeson, V.-P.; J. H. Young, Secy.

Tex., Marble Falls—Incinerator.—City, R. E. Johnson, Mayor, votes Oct. 8 on lately-noted \$2000 bonds for installation of incinerator; probably open bids about Nov. 1 on plant of 6 tons weekly capacity. (See Machinery Wanted—Incinerator.)

Tex., Taylor—Abattoir.—City contemplates establishment of abattoir. Address The Mayor.

Tex., Temple—Grain Elevator.—A. B. Crouch Grain Co., A. B. Crouch, Pres. and Mgr., will rebuild grain elevator lately noted burned; open bids Dec. 1 to construct elevator of about 20,000 bushels capacity; about 10 cars general grain daily; building of mill construction; install machinery.

Tex., Waco—Dry Cleaning Plant.—Progress Laundry will install dry cleaning equipment reported to cost \$3500 in 50x26-ft. \$1500 brick building to be constructed by Big Four Ice Co.

Va., Riverton—Duck Ranch.—Morgan's Mammoth Duck Ranch, capital \$5000, inceptd.; J. W. Morgan, Pres. and Gen. Mgr.; Riverton; C. L. Pritchard, V.-P.; G. T. Johnston, Jr., Secy.; E. S. West, Treas.; each of Front Royal, Va.; reorganization of established enterprise.

MISCELLANEOUS FACTORIES

Ala., Birmingham—Bottling.—Ala-Cola Syrup Co., capital \$60,000, inceptd.; G. H. Germany, Pres.; L. W. McAdory, V.-P.; D. P. Krapp, Secy.-Treas.

Fla., Jacksonville—Ice Cream.—Purity Ice Cream Corp., capital \$50,000, inceptd. by G. P. Sacks, A. A. Chapin and J. G. Robinson. Fla., Pablo Beach—Fiber Baskets.—Harry W. Smith, P. O. Box 143, proposes establishment of plant for manufacturing small fancy fiber baskets. (See Machinery Wanted—Basket Machinery.)

Fla., St. Petersburg—Cigars.—Wm. Fuchs, Palmetto, Fla., is reported as considering establishment of cigar factory.

Ga., Savannah—Bakery.—Nugent's Bakery, 312 Bryan St. West, has contractors estimating on construction bakery building; reinforced concrete; 3 stories; 120x90 ft.; John Ahlschlager & Son, Archts.-Engrs., Chicago, Ill. (Lately noted.)

Ky., Ashland—Tanning Extracts.—Ashland Leather Co. will build tanning extract plant to cost \$150,000; has not decided on location.

Ky., Cloverport—Boats.—Cloverport Boat & Mfg. Co., capital \$3000, inceptd. by J. W. Kate, A. C. McKaugh, J. L. Winchell and others.

Ky., Louisville—Signs.—City Sign Co. incorporated by S. C. Bowley, Wm. T. Johnston and G. H. Kirm.

Md., Baltimore—Macaroni.—Martha Bell Deal let contract to A. B. Fox to erect addition to macaroni factory at 3545 Greenmount Ave.; 1 and 2 stories; 21x32 ft.; brick; slag roof; steam heat; cost \$1800; Callis & Callis, Archts., 744 Kenwood Av., Baltimore.

Md., Baltimore—Bakery.—City Baking Co., 500 Equitable Bldg., is having plans prepared by John C. Freund, Jr., 506-509 Hoffman Bldg., for enlargement of Rice Bros. branch at rear of 310 N. Gay St.; 3 stories; 74x100 ft.; fireproof.

Md., Baltimore—Buttons.—Alma Mfg. Co., 611 S. Monroe St., let contract McLaughlin Bros., 915 Bolton St., to erect 2-story brick addition to plant.

Md., Easton—Creamery, etc.—Imperial Ice-Cream & Creamery Co. organized; Chas. L. Frampton, Pres.; John D. Williams, V.-P.; G. H. Patchett, Secy. and Mgr.; establish plant with initial daily capacity 5000 lbs. milk; all machinery purchased; erect building 45x90 ft., 2 stories, concrete blocks on concrete foundation, with slag roof; 15-ton refrigerating plant; ice machinery daily capacity 10 tons; hourly butter capacity 150 lbs.; ice-cream capacity 1 gal. per min.; milk pasteurizing plant capacity 300 gals. per hour; separator plant capacity 900 lbs. milk per hour; 3 cold-storage rooms, one for ice-cream with capacity 1000 gals., larger one for milk and butter, and third with capacity for 2000 lbs. apples or equivalent; 10 H. P. boiler to supply steam heat and hot water for cleansing and sterilizing; storage-rooms lined with white cement; electric power; G. M. Taylor & Son, Easton, have building contract.

Mo., St. Joseph—Paper Boxes.—St. Joseph Paper Box Co., capital \$25,000, inceptd. by L. G. Hamilton, Chas. E. Wright and B. W. Lisenby.

Mo., St. Louis—Schultz Realty Co., 1322-1324 Dolman St., will erect addition to factory; cost \$14,500; Kellerman Construction Co., Contr.

Mo., St. Louis—Piston Rings.—McQuay-Norris Mfg. Co. increased capital stock from \$100,000 to \$200,000.

Mo., St. Louis—Glass, etc.—Drey Automatic Glass Machine Co., capital stock \$200,000, inceptd. by Leo A. Drey, David Sommers, Herman Frank, Edw. F. Stevin and M. H. Levy; to manufacture glass and glassware.

N. C., Gastonia—Bottling.—Christo-Cola Bottling Works, capital \$10,000, inceptd. by A. C. Little, W. H. Adams and J. W. Ware.

Okla., Ada—Ice Cream.—Ada Ice Cream Co. purchased ice-cream factory; probably make number of changes, install new machinery, provide cold-storage rooms, etc.; later may install creamery equipment. (Lately noted inceptd. with \$5000 capital.)

Okla., Cushing—Acid.—Cushing Acid Works, capital \$32,000, inceptd. by R. D. Lavery, G. A. Clements, A. D. Lavery and W. F. Lavery.

Okla., Oklahoma City—Oil-Gas Burner.—New Idea Oil-Gas Burner Co., capital \$2000, inceptd. by C. H. Fleet, W. S. Nelson and R. S. Nelson.

Okla., End.—Davis Mfg. Co., capital \$350,000, inceptd. by Almond L. West, Thos. E. Forester and Monroe Davis.

Okla., Checotah—Glass Bottles.—Checotah Glass Mfg. Co. (lately noted inceptd.) organized; John F. Weaver, Pres.-Mgr.; Chas. R. Freeman, V.-P.; A. C. Weaver, Secy.; buildings, erected by company's force, will include 30x60 machinery, 50x35 packing, 30x60 mixing and storage, 45x100 furnace and two 20x80-ft. lehr rooms; use wood, steel and rods; corru-

gated-iron roofing and siding; plans by A. D. Driver; machinery to cost \$10,000; product principally milk bottles. (See Machinery Wanted—Glass (Bottle) Machinery.)

S. C., Charleston—Tires, etc.—Auto Tire & Equipment Co., capital \$5000, inceptd.; W. K. McDowell, Pres.-Treas.; W. Burgeson, V.-P.; J. H. Young, Secy.

S. C., Rock Hill—Indigo.—Hamilton Carhart Cotton Mills (Hamilton Carhart, Pres., Detroit, Mich.) will, it is reported, install equipment for manufacturing vegetable indigo; to dye company's output of cloth shipped to Detroit for overall manufacturing.

Tenn., Chattanooga—Utility Mfg. Co., capital \$10,000, inceptd. by C. E. Kuster, F. E. Kuster, E. W. Custer and others.

Tenn., Nashville—Heating and Lighting Systems.—Economy Heating & Lighting Co., L. R. Jarrett, Mgr., 807 Church St., will install heating and lighting plants. (See Machinery Wanted—Heating and Lighting Plants Equipment.)

Tenn., Nashville—Motion Pictures.—Oreca Motion Picture Corp., capital \$100,000, organized with Harry F. Green, Pres. and Gen. Mgr.; W. H. Wassman, V.-P.; W. H. Hooser, Treas.; A. P. Foster, Treas.; will install plant in Casino of Glendale Park. (Lately noted.)

Tex., El Paso—Mining Cap Protector.—Miller Mfg. Co. of Mexico, Denver, Col., is reported to establish plant to manufacture waterproof fulminating mining cap protector.

Tex., Fort Worth—Oxygen.—Burdett Oxygen Co. will erect 1-story brick factory at 309 E. 23d St.; cost \$5500; Bryce Building Co., contractor.

Tex., Galveston—Bags and Paper.—Gulfport Bag & Paper Co., capital \$5000, inceptd. by Ben Bonart, H. M. Nussbaum and Melvin R. Cohen.

Tex., Waco—Duplex Shifter.—Shirley Duplex Shifter Co., capital \$5000, inceptd. by C. Herbert Green, J. W. Bass and Wilbur F. Crawford.

Va., Fredericksburg—Clothing.—G. & H. Mfg. Co. inceptd.; Jos. M. Goldsmith, Pres.; Alvin T. Embrey, Secy.-Treas.

Va., Hopewell—Explosives.—E. I. du Pont de Nemours Co., main office, Wilmington, Del., W. P. Allen, Gen. Supt., Hopewell plant, is understood to have decided upon proceeding with enlargement of explosives plant in accordance with plans heretofore determined; now gathering structural building materials. (Recently reported as to double plant, but it is stated this report was erroneous.)

Va., Norfolk—R. L. Payne will erect factory building to cost \$12,467.

W. Va., Charleston—Powder.—E. I. du Pont de Nemours Powder Co., Wilmington, Del., referring to recent report it will invest \$500,000 to buy land and build factory at Nemours, etc., writes to Manufacturers Record: "This information is absolutely incorrect; the proposition has not been considered."

W. Va., Charleston—Cider and Vinegar.—International Fruit Product Co., Baltimore, Md., has mainly purchased machinery for lately-noted plant; daily capacity 200 bbls. cider and vinegar; let contract to George Bros., Winchester, Va., to erect \$10,000 building; W. W. Cloud, Pres.; Bruce Worthington, V.-P. and Mgr.; J. L. Clark, Secy., all of Baltimore. (Previously noted inceptd. capital stock \$25,000.)

W. Va., Clarksburg—Cut Glass.—Mound City Cut Glass Co., T. J. Sullivan, Mgr., is reported to establish plant; machinery purchased.

MOTORS AND GARAGES

Ala., Birmingham—Automobiles.—Detroit Motor Car Co., capital \$5000, inceptd.; D. P. Knoff, Pres.-Treas.; E. B. Pennington, V.-P.; L. H. Pennington, Secy.

Ga., Atlanta—Motor Trucks.—E. G. Willingham's Sons, 542 Whitehall St., let contract to Griffin Construction Co., Atlanta, to erect lately-noted motor-truck factory; 3 stories; 75x100 ft.; fireproof; cost \$17,500; construction begun; will install lathe, drill presses, etc.; manufacture motor trucks; capacity 1 to 2 trucks daily.

La., Bogalusa—Garage.—Pine Tree Inn will build garage.

Mo., Chillicothe—Automobiles and Supplies.—Adams Automobile & Supply Co. increased capital by \$25,000 to enlarge repair and machine shop.

Md., Frederick—Garage.—Ideal Garage will build 120x55-ft. 1-story-and-basement addition; fireproof construction; brick walls, reinforced concrete floor, steel ceiling, steel

roof, etc.; facilities to include 55x50-ft. machine-shop department; Kepner & Smith, Architects.

Mo., St. Louis.—Automobiles.—Chevrolet Motor Co. organized by Russell E. Gardner (Pres.), Russell E. Gardner, Jr., and Fred W. Gardner, all of St. Louis; W. C. Durant of New York and A. B. C. Hardy of Detroit, Mich.

N. C., Greensboro.—Garage.—W. C. and R. B. Boren will erect garage; 1 story; cost \$18,000.

N. C., Raleigh.—Automobiles.—North Carolina Sales Co., capital \$50,000, incptd. by W. H. McElwee, W. B. Drake, Jr., and S. J. Hindsdale.

N. C., Yadkinville.—Automobile Service.—Seagraves Ford Transportation Co., capital \$500, incptd. by W. B. Seagraves, H. B. Seagraves and John C. Wallace, all of Winston-Salem.

Va., Richmond.—Motor Vehicles.—King & Wright Co., maximum capital \$15,000, incptd. to deal in motor vehicles; Hugh D. Wright, Pres.; Herbert R. Scott, V.-P.; Allan G. Collins, Secy.

Va., Roanoke.—Automobiles.—Yost-Huff Co. will build garage; 3 stories; fireproof; about 2x200 ft.

W. Va., Huntington.—Garage.—Wright Motor Car Co. will establish garage; occupy 3-story 14x50-ft. stone, brick and steel structure; fireproof; cost \$20,000 to \$25,000; owner of building, W. P. Whitt.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ala., Gadsden.—Tennessee, Alabama & Georgia, E. F. Blomeyer, V.-P. and Gen. Mgr., Chattanooga, Tenn., New York offices at 42 Broadway, is reported as having had blueprints prepared for construction roundhouse and other divisional buildings.

Fla., Miami.—Florida East Coast Ry., M. Riddle, Gen. Mgr., St. Augustine, Fla., is reported to build car shops.

N. C., Hamlet.—Seaboard Air Line Ry., W. D. Faucette, Ch. Engr., Norfolk, Va., is reported to build repair shops.

Tex., Marshall.—Texas & Pacific Ry., C. H. Chamberlin, Ch. Engr., Dallas, will rebuild coach and paint shops burned at loss of \$20,000 and storeroom burned at loss of \$50,000.

ROAD AND STREET WORK

Ala., Camden.—Wilcox County Revenue Board let contract Central Alabama Construction Co. of Eufaula at about \$70,000 to construct road from Gastonburg to Clarke county line, 20 mi.

Ala., Camden.—Wilcox county will construct road of clay and sand or clay and gravel from limit of first 5 mi. of Camden, Oak Hill and Pine Apple public road to Oak Hill, about 10 mi.; bids until Nov. 1; J. N. Stanford, Chrmn. County Commrs.; Blair Hughes, Suprv. of Roads. (See Machinery Wanted—Road Construction.)

Ala., Carrollton.—Plemons County Commrs. let contract W. A. Hicks of Fayette, Ala., at \$90,000 to grade, shape and surface 10 mi. road from Carrollton to Reform.

Ala., Mobile.—Hampton Ewing, J. K. Glenendon, Geo. Robinson and others are interested in construction of road from Mobile River to Baldwin county shore; cost, including ferry over river, estimated at \$180,000 to \$200,000.

Ala., Scottsboro.—Jackson County Commrs. awarded contract F. D. Harvey & Co., Starkville, Miss., at \$916.75 for drainage and grading pike road—Woodyville and Limrock; amount available for expenditure \$11,000. (Lately noted call for bids.)

Ark., Jonesboro.—City will gravel and curb Main St. from about Nettleton Ave. to southern city limits. Address The Mayor.

Ark., Little Rock.—State Highway Com. will expend \$5000 for preliminary surveys and estimates on construction of proposed roads; survey 650 mi.; Hugh R. Carter, State Highway Engr.

Fla., Bradentown.—Manatee county, Venice Road and Bridge Dist., contemplates issue of \$250,000 bonds for road and bridge construction; J. W. Parlier, Sarasota, Fla., official in charge. (Bonds previously noted voted.)

Fla., Crawfordville.—Wakulla County Commrs., J. M. Towles, Clerk, will issue \$15,000 bonds for road construction.

Fla., De Land.—City will construct 6 mi. pine straw roads; straw to be spread 10 ft. wide of durable thickness; invites bids until Oct. 10; J. G. Dreka, Chrmn. Street Comm.

(See Machinery Wanted—Road Construction.)

Fla., Fellsme.—City will vote on \$50,000 bonds for street and sidewalk paving; C. W. Tolmidge, Ch. Engr. (Noted in Aug. to construct 5000 to 10,000 lin. ft. 5 and 9-ft. concrete sidewalks.)

Fla., Miami.—City has not set date for opening bids to construct lately-noted asphaltic concrete pavement; 14,000 yds.; probably call bids for late in Oct.; B. H. Klyce, Engr.

Fla., Sarasota.—City will construct 700 sq. yds. asphaltic concrete pavement on concrete base and 800 ft. combination curb and gutter on Curran St. from Palm to Pineapple Av.; width paving, 16 ft.; bids until Oct. 9; Fitch P. Wright, Commr. Public Works. (See Mch. Wntd.—Paving.)

Fla., Starke.—City engaged J. B. McCrary Co., Atlanta, Ga., as engineer for street paving and sewer system; voted on \$16,000 bonds; C. F. Hoover, Mayor. (Lately noted.)

Fla., West Palm Beach.—City let contract Hutson & Niblack at \$1596 to improve Poinsettia Ave. north from 4th Ave. to new city limits.

Ky., Carlisle.—Nicholas County Fiscal Court, J. W. Williams, County Road Engr., let contract Phelps-Post-Guy Co., Lexington, Ky., at \$24,910.78 to construct Carlisle and East Union Rd.; 13,000 cu. yds. crushed stone; macadam. This supersedes recent item. (See Machinery Wanted—Road Machinery.)

Ky., Georgetown.—Scott County Commrs. contemplate calling election upon issuance \$100,000 bonds for reconstructing roads.

Ky., Lexington.—Fayette county voted \$300,000 bonds to construct roads and pay county's share of cost of bridge to be built across Kentucky River by Fayette and Madison counties at estimated cost of \$150,000. Address County Commrs. (Lately noted.)

Ky., Madisonville.—Hopkins County Commrs. let contract A. A. Smith of Greenville, Ky., to construct 4 mi. State-aid roads.

Ky., Mayfield.—Graves County Fiscal Court let contract C. E. Cressap & Bro. of Humoldt, Tenn., at \$25,852.13, to grade and gravel 10 1/2 mi. of road between Mayfield and Graves county line, including excavation, grading and graveling; Yancy & Johnson of Paducah, Ky., at \$4824.36 to build 37 concrete culverts and 3 corrugated pipes.

Ky., Princeton.—Caldwell County Commrs. let contract Durrett Construction Co. of Louisville at \$11,000 to construct 2 mi. of macadam State-aid highway; 12,300 cu. yds. excavation, 2738 cu. yds. crushed stone and 195 cu. yds. concrete. (Call for bids lately noted.)

Ky., Russellville.—Logan County Commrs. let contract Byars Operating & Construction Co., Russellville, at \$10,410 to construct 2.7 mi. macadam road, and Rhea Price, Auburn, Ky., at \$7496 to construct macadam road.

Md., Baltimore.—City let contract American Paving & Contracting Co., Montebello Ave. and Jenkins Lane, at \$16,922.50 to grade and pave Alameda from Harford Rd. to Garrett property, 8500 sq. yds.; to P. Flanagan & Sons, 120 E. Lexington St., to pave Rosedale St. from Edmondson Ave. 40 ft. north of Arunah Ave. and Arunah Ave. from Rosedale to Longwood St.; about 2700 sq. yds. (Call for bids lately noted.)

Md., Baltimore.—City will grade, curb and pave with sheet asphalt, vitrified block paving and granite block repaving, all on concrete base, included in 2 contracts: No. 122—Sections of Wine alley, Balderston St., Mercer St., Water St., etc., 2200 yds. sheet asphalt, 350 sq. yds. vitrified block; No. 123—Sections of State St., Breidenbaugh alley, Trenton St., etc., 240 sq. yds. vitrified block and 540 sq. yds. granite block repaving; bids until Oct. 13; R. Keith Compton, Chrmn. and Consit. Engr. Paving Com. (See Mch. Wntd.—Paving.)

Md., Centerville.—Queen Anne's County will construct 4.4-mi. of State-aid highway upon or along Water St. through Centerville and 1.73 mi. State-aid highway upon or along Mason's Branch Rd. between Jarman's Branch and Mason's Branch; bids until Oct. 5; F. E. Schnepp, Roads Engr. (See Mch. Wntd.—Road Construction.)

Miss., Canton.—City is reported contemplating issuance of \$20,000 bonds to improve streets. Address The Mayor. (Noted in July as contemplating construction of 4 mi. gravel streets, sidewalk improvements, etc.)

Miss., Lexington.—Holmes county, Durant Dist., voted bonds to construct roads. Address County Commrs.

Mo., Kansas City.—City let contract D. T. Bresnahan to pave 21st St. from Grand Ave.

to McGee St. with brick, and E. D. Tyner Construction Co. to pave 23d St. from Grand Ave. to McGee St. with creosoted wood blocks.

Mo., Sedalia.—City will construct 5200 sq. yds. vertical fibre brick with asphalt filler on Moniteau Ave., 8th to 18th St.; cost \$16,100; F. T. Leaming, City Engr.

Mo., St. Louis.—City let contract Fruin-Colnon Contracting Co., Merchant Laclede Bldg., St. Louis, for 60,000 cu. yds. grading.

N. C., Hendersonville.—L. B. Morse is promoting construction of scenic highway from Charlotte-Asheville highway in Chimney Rock Valley to base of Chimney Rock; surveys made.

N. C., Kinston.—City ordered further extension of street work, consisting of about 60,000 sq. yds. sheet asphalt paving on concrete base and 30,000 lin. ft. concrete curb and gutter; contract let Oct. 4; Gilbert C. White, Engr., Charlotte, N. C. West Construction Co., Chattanooga, Tenn., is proceeding with its contract (lately noted) let at about \$100,000 for 20,000 sq. yds. sheet asphalt paving on concrete base, with Bermuda sidewalks, curbs and gutters.

N. C., Raleigh.—City Commrs. passed ordinance authorizing expenditure of \$10,000 to pave sidewalks.

N. C., Raleigh.—City will construct granolithic sidewalks on sections of North Salisbury, West Peace and Lane Sts., Seawell, Harrison and Glenwood Aves. Address City Commrs.

Okla., Clinton.—City proposes to pave Frisco Ave. Address The Mayor.

Okla., Eufaula.—McIntosh county defeated \$25,000 bonds to construct roads. (Lately noted.)

Tenn., Chattanooga.—City Commrs. accepted offer of Noll Construction Co. of Chattanooga to take over contract of West Construction Co. for paving on E. Main St., and to pave McCallie Ave. from East End Ave. to Southern Ry. crossing, and E. 7th St. from Cherry St. to Georgia Ave. with natural asphalt.

Tenn., Columbia.—City let contract Southern Asphalt & Construction Co., Birmingham, Ala., at about \$50,000 to pave various streets; J. M. Dedman, Mayor. (Lately noted.)

Tenn., Dayton.—Rhea County Highway Committee, W. P. Darwin, Chrmn., let contract Freeman & Robbins, Knoxville, Tenn., at about \$210,000 for highway macadamizing, grading, culverts, etc. (Lately noted call for bids.)

Tenn., Elizabethton.—Carter county will construct about 70 mi. graded road and repair and complete roads already graded; use concrete in construction of culverts and smaller bridges where practical; Road Commissioners, L. D. Gastelger, Secy., Braemer, Tenn. (See Machinery Wanted—Road Construction.)

Tenn., Pulaski.—Giles County Commrs. contemplate bond issue to construct roads.

Tenn., Sweetwater.—City voted \$5000 bonds to improve streets. Address The Mayor. (Lately noted.)

Tex., Abilene.—City, E. N. Kirby, Mayor, will not pave lately-noted streets at present.

Tex., Athens.—City let contract to Smith Bros. & La Rue, Crockett and Palestine, Tex., to pave and clay streets and square; cost \$18,000; Engr., Wm. Hess, Athens. (Bids lately noted.)

Tex., Denison.—City will construct about 13,000 sq. yds. paving; 5-in. concrete base; 2-in. asphaltic wearing surface; grading, curb and gutter; bids until Oct. 19; A. B. Clenny, City-Engr.; lately noted. (See Mch. Wntd.—Paving.)

Tex., El Paso.—City let contract Texas Bitulithic Co. of Dallas to pave Piedras St. from Magoffin to Bilbs St.; Jack Dawson, City Clerk. (Lately noted.)

Tex., El Paso.—City let contract Texas Bitulithic Co., Dallas, at \$42,596.95 to pave Texas St.

Tex., Fort Worth.—City will construct poured asphalt macadam pavement on Landrum St. from Eighth Av. to Rosedale St. and Rosedale St. to Forest Blvd.; 12,300 sq. yds.; bids until Oct. 12; specifications on file with F. J. Von Zuben, City Engr. (See Machinery Wanted—Paving.)

Va., Bland.—Bland County Suprvs., R. C. Repass, Clerk, let contract to J. C. Tuggle, Rocky Gap, Va., to grade and drain 2.46 mi. road; Engr., E. M. Davidson, Rocky Gap. (Lately noted.)

Va., Chase City.—City contemplates voting on bonds to improve streets. Address The Mayor.

Va., Eastville.—Northampton County Road Board, Eastville Dist., has \$25,000 available for expenditure on highway construction; to include sand-clay roads, iron and concrete bridges; about 60 mi. highway; H. L. Arbene, Washington, D. C., will make surveys; Dr. W. L. Dalby, Bridgetown, Va., county official in charge. (This supersedes recent item.)

W. Va., Huntington.—Cabell County Commrs. let contract A. L. James at \$2250 to construct Chadwick Creek Rd.

W. Va., Mannington.—Marion county, Mannington Road Dist., will vote Oct. 12 on previously-noted \$300,000 bonds for road construction. Address Marion County Commrs.

W. Va., Parkersburg.—City let contract Parsons Construction Co. of Brownsville, Pa., at \$4850.34 to pave 19th St. from Murdoch Ave. to Avery St.; vitrified brick; Frank Good, City Clerk. (Call for bids lately noted.)

W. Va., Pineville.—Wyoming County Commissioners, H. M. Cline, Pres., County Court, will construct about 200 mi. dirt road; \$550,000 bonds lately noted voted.

W. Va., Bath (postoffice Berkeley Springs). City, J. A. Risinger in charge, has \$30,000 available for paving; R. Taylor, Engr.

SEWER CONSTRUCTION

Ala., Citronelle.—City voted on \$10,000 bonds to construct sewer system; Prof. Edgar R. Kay of Tusculoma, Ala., is Consit. Engr. and made surveys.

Ark., Dermott.—City will build sewage-disposal plant; Sewer Improvement Dist. No. 2 receives bids until Oct. 8; A. C. Blanks, Secy. Commrs.

Fla., Starke.—City engaged J. B. McCrary Co., Atlanta, Ga., as engineer for sewer system and street paving; voted on \$25,000 bonds; C. F. Hoover, Mayor. (Lately noted.)

Md., Baltimore.—City will construct trunk sewer in Dist. 34-B, contract No. 164; 2700 lin. ft. 8 to 18-in. sewer and 100 lin. ft. house connections; bids until Oct. 13; Chas. England, Chrmn. Sewerage Com. (See Machinery Wanted—Sewer Construction.)

Md., Grantsville.—Town contemplates constructing sewer system; Wm. Harvey, City Engr. of Frostburg, Md., is making surveys.

Miss., Philadelphia.—City, W. D. Gillis, Mayor, issued \$30,000 bonds (previously noted voted) for sewerage and water-works.

Mo., Fayette.—City let contract Moreno, Brooks & Burkham, Syndicate Trust Bldg., St. Louis, at \$35,817.47 to construct sewer system; 9 mi. vitrified sewer pipe, 8 to 12 in. diam.; septic tanks and filter beds; W. B. Rollins & Co., Engrs., 439 Midland Bldg., Kansas City, Mo. (Call for bids lately noted.)

Mo., St. Joseph.—City contemplates expending \$550,000 for improvements to sewer system. Address The Mayor.

N. C., Durham.—City, B. S. Skinner, Mayor, will construct sanitary sewer; bids until Oct. 18; about 2700 ft. 8-in. and 270 ft. 6-in. sewer, 16 manholes, 2 flush tanks; H. W. Kueffner, Engr. (See Machinery Wanted—Sewer Construction.)

N. C., High Point.—City has about \$60,000 available for expenditure on extending sewerage outlet; W. P. Pickett, Mayor.

Okla., Muskogee.—City, Franklin Miller, Mayor, voted \$25,000 bonds for sanitary sewers.

Tenn., Cleveland.—Walter G. Kirkpatrick, Engr., Birmingham, Ala., has completed surveys, maps and charts for sewer system, and will proceed with plans and specifications, so that bids may be invited; estimated cost \$75,000, for which bonds have been issued. (Noted in July.)

Tenn., Chattanooga.—City will construct Broad St. sewer extension south from Main St. through W. & A. R. R. grounds, including lateral connections; E. D. Bass, Commr. Dept. Streets and Sewers, receives bids until Oct. 12. (See Machinery Wanted—Sewer Construction.)

Tex., Arlington.—City voted \$10,000 bonds to extend sewer system. Address The Mayor.

Tex., Crockett.—City will construct sewer system; V. M. Ehlers, Engr., is making survey. J. W. Young, Mayor.

Tex., Dallas.—City let contract Jett-Muths Construction Co. of Montgomery, Ala., at about \$97,000 to build Imhoff sewer disposal plant.

Tex., Dallas.—City let contract Winslett-Eldridge Co. at \$4377.72 to construct Cedar Creek outfall sewer leading from alley between 9th and 10th Sts. to Cedar Creek outfall.

Tex., Kaufman.—City contemplates sewer construction. Address The Mayor.

Tex., Lancaster.—City voted \$15,000 bonds to construct sanitary sewer system and extend water works; J. V. Griffin, Mayor. (Lately noted.)

Tex., San Benito.—City, J. H. Lyons, Mayor, will open bids about Oct. 20 to construct lately-noted sewage-disposal plant; concrete and steel reinforcing; cost \$5000; A. T. Agar, Engr., San Benito. (See Machinery Wanted—Sewer Construction Materials.)

Tex., Santa Anna.—City let contract to Brashear & Eubank, Brownwood, Tex., to construct 9600 ft. 6, 8 and 12-in. sewer, with disposal plant. (\$6000 bonds lately noted.)

Tex., Sweetwater.—City contemplates installing disposal plant. Address The Mayor.

Tex., Uvalde.—City contemplates installing disposal plant. Address The Mayor.

Va., Charlottesville.—City, C. D. Carter, Supt. Water and Sewers, let contract to E. L. Cave, Charlottesville, for sewer construction including 8 and 10-in. terra-cotta pipe, 28 manholes, 3 flush tanks; cost \$7500; W. Washabaugh, Engr. (Bids lately noted.)

W. Va., Parkersburg.—City will construct 10 sanitary sewers to cost \$7977.50; Frank Good, City Clerk.

TELEPHONE SYSTEMS

Ark., Hughes.—Beck Telephone Co., capital \$2000, inceptd. by J. O. E. Beck, J. M. McGregor, G. W. Sims and T. R. Porter.

Ark., Hughes.—Beck Telephone Co., J. O. E. Beck, Prest., will construct 40-mi. telephone line; cost \$1000; has all equipment and supplies. (Lately noted organized.)

Ky., Stanford.—Logan's Creek Telephone Co., inceptd. by Frank P. Spoonamore, J. C. Pelles and W. P. Logan.

Okl., Locust Grove.—Locust Grove Telephone Co., capital \$1000, inceptd. by C. W. Bradshaw of Locust Grove, C. A. Wilson of Boggs, Okla., and Harry Seaton of Pryor, Okla.

Tenn., Cleveland.—Cumberland Telephone & Telegraph Co. (main office, Louisville, Ky.) will build exchange and office building.

TEXTILE MILLS

Ala., Alabama City.—Cotton Twine.—H. P. Smith, Keener, Ala., is reported as establishing cotton-twine mill.

Ga., Gainesville.—Kuit Goods.—H. M. Clark of Bowersville, Ga., is considering establishment of \$25,000 knitting mill.

Mo., Kansas City.—Knit Goods.—Goodnow-Brookfield Knitting Co. increased capital stock from \$100,000 to \$125,000.

N. C., Albemarle.—Cotton Yarn.—Edrd Mfg. Co., J. W. Cannon, Prest., Concord, N. C., will build additional mill; let contract Holdbrooks & Bradshaw, Salisbury, N. C., to erect 2-story 360x107-ft. regular mill-construction building; machinery installation will probably be about 17,500 spindles, etc. (Lately reported to build additional mill costing \$500,000, etc.)

N. C., Albemarle.—Cotton Yarn.—Wiscasset Mills Co. will build additional mill; let contract Holdbrooks & Bradshaw, Salisbury, N. C., to erect regular mill-construction buildings as follows: Main structure 330x107 ft.; picker-room 107x56 ft., 2 stories; winding-room 150x80 ft., 1 story; machinery installation will probably be about 17,500 spindles, etc. (Lately reported to build additional mill costing \$500,000, etc.)

Tenn., Shelbyville.—Cotton Goods.—Shelbyville Cotton Mills, capital \$100,000, inceptd. by Wm. J. McGill, Henry B. Cowan, John D. Hutton and others; will build cotton mills; electric power furnished by Tennessee Valley Light & Power Co.

WATER-POWER DEVELOPMENTS

Ga., Toccoa.—City let following contracts: J. G. Phillips of Cornelia, Ga., at \$3766.70 to build concrete power-house and furnish and install 340 in. ft. steel flume 42 in. inside diam., flume to be of No. 8 plate and set on concrete piers; Walker Electric & Plumbing Co. of Rome, Ga., at \$15,185 to construct transmission line from power site to town, street lighting system and White Way; S. D. Brown, Engr.; H. J. Cox, City Clk. (Call for bids lately noted.)

Tenn., Afton.—L. D. Gasther Co. will construct hydro-electric plant to cost \$100,000; develop electricity.

WATER-WORKS

Ala., Citronelle.—City voted on \$15,000 bonds to construct water-works; Prof. Ed-

gar B. Kay of Tuscaloosa, Ala., is Const. Engr., and made surveys.

Ala., Scottsboro.—City, W. C. Maples, Clerk, voted \$5000 bonds for extension of water-works; additional springs; gravity system.

Ark., Cravette.—City Council is considering plan to install engines in water-works and electric-light plant. Address The Mayor.

Ark., Earle.—Earle Light, Water & Ice Co., capital \$15,000, inceptd. by Louis Barton, W. B. Rhodes, I. E. Freeman and others.

Ark., Malvern.—Water-works Com. let conditional contract Lane & Bowler of Stuttgart, Ark., to drill number of 100-ft. test wells; if tests prove satisfactory, city will let formal contract for \$7500 to company to drill number of wells of larger capacity; G. E. Matterson, Secy. Improvement Dist. (Noted in July.)

Fla., Clearwater.—City let contract R. Davis at \$790 to construct reinforced concrete reservoir, and Fairbanks-Morse Co. of Chicago to furnish belt-driven air compressor and oil engine; A. J. Brandon, Supt. Water-works Dept. (Call for bids lately noted.)

Ga., Acworth.—City will construct water-works and electric-light plant. Address The Mayor.

Ga., Nicholls.—Public Utility Co., Waycross, Ga., will install water-works and electric-light plant. (See Elec. Plts.)

La., Gretna.—City let contract J. R. Sutherland & Co. of Kansas City, Mo., at \$46,830 to construct water-works to connect with municipal system of Algiers; Frank T. Payne, City Engr. (Lately noted.)

Md., Baltimore.—Board of Awards, City Hall, will receive bids until Oct. 13 for alterations to roof of Eastern pumping station, Oliver and Wolfe Sts.; specifications and proposal forms obtainable from Robt. L. Clemmitt, Acting Water Engr., City Hall; charge of \$5 for each set of specifications.

Miss., Philadelphia.—City, W. D. Gillis, Mayor, issued \$30,000 bonds (previously noted voted) for water-works and sewerage.

Mo., Lees Summit.—City is having plans prepared by Henricl, Kent & Lowry Engineering Co., Kansas City, for water-works; estimated cost, \$45,000.

N. C., Monroe.—J. H. Myers will construct 6-in. water mains for Benton Heights; invites bids.

N. C., Raleigh.—City's \$500,000 bonds having been validated, contractors will proceed with water-works construction. Manufacturers Record noted in May as follows: "City let following contracts to construct water-works: Christian Construction Co., Durham, at \$32,977, for constructing a river station, city station and filter-house; Chapman Valve Mfg. Co., Indian Orchard, Mass., \$2094, for gate valves; Allis-Chalmers Co., Milwaukee, Wis., at \$18,000, for pumping engines; De Laval Steam Turbine Co., Trenton, N. J., at \$11,200, for pumps; D. M. Dillon Steam Boiler Works Co., at \$7087, for boilers; Engr., Gilbert C. White of Charlotte; W. J. Brogden, Mayor." Contract for 40,000,000-gal. raw-water reservoir is not yet let, and bids will be asked in 30 to 60 days; work to include earth embankments, concrete lining slopes, etc.

Okl., Tulsa.—City votes Nov. 2 on \$900,000 bonds to construct storage basin at mouth of Shell Creek and necessary flow line to carry water to municipal pumping station. Address City Com.

S. C., Spartanburg.—City will expend \$18,000 on lately-noted improvements to pumping station, etc.; extension capacity 3,000,000 gals.; filter-room extension 40x34 ft.; brick with slate roof; extension to coagulating basin, 100,000 gals.; open pump bids Oct. 19; date of opening bids on filters not set; also (as previously stated) installing 600 ft. 18-in. wood pipe, gravity line to settling basin and cement dam 150 ft. long and 5½ ft. high at auxiliary plant; S. A. Bush, Supt. Water-works. (See Machinery Wanted—Pump.)

Tex., Amarillo.—City is having plans prepared by Burns & McDonnell, Engrs., Kansas City, Mo., for water-works.

Tex., Atlanta.—Atlanta Electric & Ice Co. acquired and will operate for 5 years municipal water-works; contemplates installing equipment.

Tex., Lancaster.—City voted \$15,000 bonds to extend water-works and construct sanitary-sewer system; J. V. Griffin, Mayor. (Lately noted.)

Tex., Whitney.—City will vote Oct. 19 on \$15,000 bonds to construct water-works. Address The Mayor.

Va., Charlottesville.—City, C. D. Carter, Supt. Water and Sewers, plans installation of 2500 ft. 4 and 6-in. water mains.

Va., Norfolk.—City Finance Committee recommended appropriation of \$36,102 for repairs to 2 dams and spillway at Little Creek; authorized Board of Control to ask bids to construct dam and spillway at Lake Taylor and rebuild clear-water basin; W. H. Taylor, Jr., City Engr.

Va., Williamsburg.—City voted \$30,000 bonds to construct water-works. Address The Mayor. (Lately noted.)

WOODWORKING PLANTS

Ala., Birmingham.—Furniture and Bedding, Birmingham Mfg. Co., capital \$25,000, inceptd.; Lewis Whaley, Prest.; W. C. Appleby, V.-P.; Wm. Y. Prince, Secy.-Treas.

Ark., Jonesboro.—Barrel Hoops.—J. F. Speice of Speice Bros., Pocahontas, Ark., contemplates establishing plant to manufacture slack-barrel cooperage hoops.

Ky., Louisville.—Tables.—Voss Table Co., 828 S. 16th St., will erect lately-noted addition by company's force; room containing about 1500 sq. ft.; manufacture dining tables; capacity, 75 daily.

Ky., Pike County.—Barrel Staves.—W. J. Fell Co. of Ashland, Ky., purchased 41,000 trees on waters of Shelby Creek in Pike and Letcher counties; will manufacture into barrel staves. (See Lumber Mfg.)

La., Lake Charles.—Coops.—National Coop & Box Co. (lately noted) organized with S. A. Cummings, Prest.; J. D. Pace, V.-P.; C. F. Schrubler, Secy.-Treas.; rent building at present; will install machinery; cost \$3000; daily capacity, 1000 coops. (See Machinery Wanted—Woodworking Machinery.)

Md., Baltimore.—Blinds, Doors, etc.—Baltimore Lumber Co. has plans by Geo. R. Callis, 55 Knickerbocker Bldg., Baltimore, for sash, door and blind factory at plant, 1141-7 Watson St.; 2 stories; 51x57 ft.; fireproof; brick and cement; slag roof; concrete floor; electric light; cost about \$9000; bids opened Oct. 4 or 5. Previously noted under Warehouses. (See Machinery Wanted—Woodworking Machinery and Equipment.)

N. C., Warrensville.—Barrels.—Buffalo Packing Co., G. W. Miller, Prest., will install barrel-manufacturing equipment mentioned in July. (See Canning and Packing Plants.)

Tenn., Chattanooga.—Box Shooks and Flooring.—G. H. Evans (Prest. G. H. Evans Lumber Co.) will organize company with \$100,000 capital to manufacture box shooks and hardwood flooring. (See Lumber Manufacturing.)

Tenn., Jackson.—Boxes.—J. G. Yarbrough (Prest. Madison County Truck and Fruit Growers' Assn.) and others are promoting establishment of wooden-box factory.

Tenn., Memphis.—Hudson-Dugger Co. acquired stave plant of Kennedy Heading Co. in New South Memphis and will probably enlarge.

Tenn., Tipton County.—Spokes.—Wels & Lesh Mfg. Co. of Memphis, Tenn., will manufacture spoke material; purchased 1000 acres hardwood timber in Tipton county.

FIRE DAMAGE

Ala., Arlington.—Pritchard Mercantile Co.'s store.

Ala., Brewton.—Escambia Turpentine Co.'s still.

Ala., Cotton Hill.—R. D. Locke's house and barns.

Ala., Decatur.—Bob Johnson's farmhouse, owned by Robinson estate.

Ala., Marion.—Wm. Mitchell's residence on North Centreville St.

Ala., Moulton.—Ed Hurst's residence.

Ark., Jonesboro.—Wm. Hudson's residence on W. Oak Ave., loss about \$4000; Jeffrey Houghton's residence, loss \$3000.

Ark., Pine Bluff.—Mrs. Rose Lisinski's residence at 19th and Cherry Sts.; loss about \$5000.

Fla., Apalachicola.—T. E. Thomas' sawmill and about 600,000 ft. pine lumber; estimated loss \$8000.

Fla., Jacksonville.—Palmetto Machine and Boat Works; loss about \$10,000.

Fla., Manatee.—People's Meat Market at Manatee Ave. and Glazier St.; building owned by Robt. Betha.

Fla., Sumatra.—Thomas Lumber Co.'s sawmill; loss \$8000.

Fla., Sumatra.—Thomas Lumber Co.'s sawmill; loss \$8000.

Ga., Elberton.—W. T. Arnold & Son's cotton warehouse; loss \$20,000.

Ga., Elberton.—Gardner & Arnold's warehouse, occupied by W. T. Arnold & Son; loss \$25,000.

Ga., Hawkinsville.—G. B. Pate's sawmill; loss about \$1000.

Ga., Ocilla.—J. R. York's residence; loss \$3000.

Ky., Owenton.—F. Fullilove's store, occupied by Ransdell & Ransdell; loss \$4000.

Ky., Somerset.—Judge A. C. Davis' residence.

Ky., Murray.—John Ward's residence near Murray.

La., Napoleonville.—Napoleonville Cypress Co.'s sawmill.

La., Kinder.—Peavy-Byrns Lumber Co.'s power plant and half of mill; loss \$75,000.

La., New Orleans.—Sterns Orleans Acid Co.'s plant at Elysian Fields and Florida Ave.; estimated loss, \$80,000.

La., Shreveport.—W. K. Henderson Iron Works & Supply Co.'s plant building, machinery, etc., damaged to extent \$40,000 to \$50,000.

La., Zwolle.—Sabine Lumber Co.'s sawmill and drykilns; loss \$100,000.

Md., Emmitsburg.—James Troxell's barn; loss about \$5000.

Miss., Marks.—J. M. Phelps' stove plant.

Miss., Meridian.—Usher Bros. Lumber Co.'s planing mill; estimated loss \$9000.

Miss., Yazoo City.—Two buildings owned by J. O. Stricklin, Yazoo City, and Mrs. A. F. Stone, Memphis, Tenn.; loss about \$7000.

Mo., Alba.—Jumbo Mining Co.'s concentrating plant; loss about \$25,000.

Mo., Nevada.—St. Francis' Orphan's Home; loss \$75,000.

Mo., Shelbyville.—J. W. Thompson's building, occupied by Wilson & Jackson; Wm. Winetroub's Sons' building, occupied by V. B. Lawrence; loss \$16,000.

N. C., Hendersonville.—J. K. Gilreath's residence on Ridge Rd.; loss \$4500.

N. C., Hertford.—Albemarle Lumber Co.'s 6 drykilns, lumber, etc.; reported loss \$20,000.

N. C., Peachland.—Public School. Address School Trustees.

Okl., Guthrie.—Model Flour Mills; loss \$50,000.

Okl., Sapulpa.—Premium Glass Mfg. Co.'s plant.

S. C., Barnwell.—Building containing opera-house, County Dispensary and dispensary bottling plant; loss \$6000.

Tenn., Athens.—J. L. Ledbetter's store and residence; loss \$5000.

Tenn., Halls.—Halls Gin Co.'s plant.

Tenn., Hamburg.—Tennessee Mercantile Co.'s building; loss \$20,000.

Tenn., Memphis.—S. R. Hungerford Lumber Co.'s plant and yards; total estimated loss, \$50,000.

Tenn., Tracy City.—Grundy Printing Co.'s plant; loss on equipment, \$2500; loss on building, \$1000.

Tex., Beaumont.—W. L. Pratt's residence, 2600 Collier's Ferry Rd.; L. L. Rutt's residence at Live Oak and Coast Sts.; loss \$7000.

Tex., Dallas.—N. C. Siggons' residence at 2408 Holmes St.; loss \$3000.

Tex., Galveston.—Beach Pharmacy at 1613 Tremont St., owned by Armstrong estate; J. M. Gibbons' residence, 1617 Tremont St.; loss \$8000 to \$10,000.

Tex., Jacksonville.—J. W. Wiggins' dwelling.

Tex., Ladonia.—G. H. Jones' residence in Cobb Addition; loss \$3500.

Tex., Marshall.—Texas & Pacific Ry.'s storeroom, loss \$350,000; buildings and shops, \$300,000; coaches and cars, \$200,000; miscellaneous, \$150,000; total estimated loss \$1,000,000.

Tex., Port Sullivan.—Luther Self's residence.

Tex., Whitewright.—Mrs. J. L. German's residence; loss \$9000.

Va., Charlottesville.—Mrs. N. W. Berkeley's residence, "Keneshaw"; loss about \$4000.

DAMAGED BY STORM

La., New Orleans.—Felicity Methodist Church, at Felicity and Chestnut Sts. (address The Pastor); Masonic Temple, at St. Charles and Union Sts., loss \$20,000; Beauregard Public School (address The Mayor); St. Vincent Orphan Asylum.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ga., Atlanta.—Mutual Realty Co. has plans by Walker & Chase, 533 Candler Bldg., Atlanta, for apartment building at 61 Forrest Ave.; 20x33 ft.; brick and reinforced concrete; tar and gravel roof; reinforced concrete floors covered with oak and pine; steam heat; electric lights; hand elevators; cost \$60,000; day labor; construction begun. Address architects. (Lately noted.)

Ga., Atlanta.—McEachern & Wardlaw will erect 2-story concrete apartment-house; cost \$600; day labor.

Ky., Ashland.—Wm. Salsbury, Mayor, will erect store and flat building. (See Stores.)

Ky., Lexington.—Jas. R. B. Macoun has plans by Frank L. Smith, 29 Lexington Banking & Trust Bldg., Lexington, for apartment-house on N. Upper St.; 4 stories; 29x68 ft.; fireproof; tar and gravel roof; metal, wood and concrete slab floor; vacuo-vapor heat; cost about \$20,000; construction in spring. Address architect.

Md., Baltimore.—George R. Morris, 45-46 Gunther Bldg., and others will erect apartment-house on University Parkway; probably 5 stories; Mr. Morris is preparing plans.

Mo., Kansas City.—Robt. S. Patterson will remodel building at 10th St. and Troost Ave. for apartment-house; cost \$9000.

Mo., St. Louis.—Trade Realty & Building Co. will erect store and tenement-house. (See Stores.)

Mo., St. Louis.—F. S. Neill will erect 2 two-story tenements at 4135-37 Kossuth St.; cost \$9000; construction by owner.

Mo., St. Louis.—Gilbert H. Davis will erect four 5 and 6-room flats; investment \$25,000.

Mo., St. Louis.—F. H. Britton, Prest. of Cotton Belt R. R.; Edw. L. Bakewell, Agt., will erect apartment-house on Lindell Blvd.; 6 apartments of 9 and 10 rooms and 3 baths; solariums and sun porches; electric lights; garages in connection; cost \$100,000; completion April 1.

Mo., St. Louis.—Girard Realty & Building Co. acquired 150-ft. site at De Touhy St. and Klemm Ave. and will erect 3 double flats of 4 and 5 rooms; investment \$40,000; also erect 3 bungalows of 5 rooms each in Hayden's Blvd. Heights; hardwood floors.

Mo., St. Louis.—J. Szepanski will erect 2 two-story brick tenements at 4533-39 Natural Bridge Rd.; cost \$10,000; construction by owner.

Okla., Tulsa.—L. C. Wells will erect duplex apartments at 1217 S. Boston St.; 28x52 ft.; brick foundation; frame construction; shingle roof; oak and pine floors; gas heating; electric lighting; cement sidewalks; plans and construction by owner. (Noted in Sept. under Dwellings.)

Tenn., Nashville.—Lynden Realty Co. has plans by Thomas W. Gardner and Edw. E. Dougherty, both of Nashville, for apartment house at 33d Ave. and Harding Rd.; 3 stories; brick; contract let in detail; bids closed Oct. 11.

Tex., El Paso.—E. L. Torres will erect 2-story apartment building in Cotton addition; 34x32x28 ft.; cost \$5700.

Tex., El Paso.—J. W. Riordan, Marfa, Tex., will erect apartment-house; 12 four-room suites; 2 stories; brick; cost \$27,000.

Tex., El Paso.—Percy McGhee, Sr., has plans by Percy McGhee, Jr., Mills Bldg., El Paso, for apartment-house at Cliff and Florence Sts.; brick; cost \$8000.

Va., Berkeley.—John B. Foster did not let contract to Geo. T. Wrenn to convert dwelling into apartment house, as recently reported; only minor repairs by day labor.

Va., Norfolk.—Herbert W. Simpson, Norfolk, prepared plans for apartment-house in Ghent; 4 stories; 8 suites; communicating telephones from entrance; owner's name withheld.

ASSOCIATION AND FRATERNAL

La., Alexandria.—Pythian Building Assn., R. F. Thompson, Prest., will erect 3 or 4-story building.

Tex., Corpus Christi.—Y. M. C. A., Dr. T. A. Anderson, Prest., plans to erect building; cost \$65,000.

Tex., Galveston.—Knights of Columbus Building Assn., J. M. Maurer, Prest., will erect building on Church St.; 3 stories; cost \$20,000.

Tex., Mertzon.—A. F. & A. M. will erect building; 2 stories; frame; 24x50 ft.; Dr. E. O. Deal and others, Com.

Tex., Waco.—Waco Council Boy Scouts will erect gymnasium in Jim Barker Park; 40x60 ft.; frame; shingle roof; wood floor; cost about \$4000; Archt. not employed; construction in 30 days. (Noted in September.)

Tex., Wichita Falls.—A. F. and A. M. plan to erect temple; 3 stories; lower floor for stores; cost \$40,000; Dr. R. C. Smith, Chrmn. Building Com.

Va., Danville.—Y. M. C. A. will erect \$40,000 addition to building; Riverside & Dan River Cotton Mills appropriated \$40,000 to erect and equip Y. M. C. A. building for employees.

Va., Richmond.—Richmond Lodge No. 45, B. P. O. E., will expend \$9000 to enlarge building at 11th and Marshall Sts.; tile and wood floor; enlarge steam-heating plant; electric light; John Schmickie, Supt. Bldg.; separate contracts; Carnel & Johnston, architects, Richmond. (Lately noted.)

BANK AND OFFICE

Ala., Oneonta.—Frank Holcombe will erect store and office building. (See Stores.)

Fla., Tampa.—Robt. Mugg will not erect building. (Lately noted contemplating erecting structure.)

Ga., Bainbridge.—Board of Trade plans to erect building.

Ga., Camilla.—Dr. Eric Thornton has plans for store and office building. (See Stores.)

Ky., Louisville.—Salvation Army will erect building to contain offices, etc. (See Miscellaneous.)

Ky., Pineville.—Patterson & Ingram have plans by F. Underwood, Pineville, for office building at Kentucky Ave. and Oak St.; 45x36 ft.; brick; asbestos roof; hardwood floor; electric light; cost \$3000 to \$4000; hot-water heat \$400; construction in 2 weeks. (Noted in September.)

Tex., El Paso.—Lander Lumber Co. has plans by S. E. Patton, 509 Caples Bldg., El Paso, for office and warehouse; 45x15 ft.; 2 stories and basement; Barrett specification roof. Address owner. (Noted in Sept.)

CHURCHES

Ala., Montgomery.—Highland Park Presbyterian Church will erect building. Address The Pastor.

Ga., Rome.—Maple Street Baptist Church will erect Sunday-school annex; plans prepared; construction in charge of W. P. Bradfield, Rome.

Ky., Burkesville.—Christian Church, Rev. R. T. Hickerson, Pastor, will rebuild burned structure in spring; about 40x60x22 ft.; cement or brick; metal or slate roof; hardwood floors; hot-air or steam heat; cost \$9000 to \$8000; building to consist of auditorium and basement. Address W. F. Alexander, Burkesville. (Lately noted damaged by fire.)

Ky., Louisville.—Bethlehem Evangelical Church will erect building; one story and basement; brick; cost \$22,000; Gray & Wischmeyer, Archts.

Md., Baltimore.—Augsburg Evangelical Lutheran Church is having tentative plans prepared by J. E. Laferty, 11 E. Pleasant St., Baltimore, for parsonage and bowling alley building in Fort St. Park; former 2½ stories; stone; latter probably frame.

Mo., St. Louis.—Archbishop J. J. Glennon purchased site at Ashby Av. and Forsyth Blvd. and will erect church and parochial school.

Mo., St. Louis.—Immanuel Presbyterian Church, Rev. D. M. Hazlett, pastor, will erect building; basement completed; cost of superstructure \$11,000; total cost \$20,000; J. M. Dunham, Archt., St. Louis.

N. C., Wilson.—First Baptist Church, Rev. T. M. Chambliss, pastor, plans to erect mission chapel on Pender St.; also plans to erect building in Five Points.

Okla., Kusa, P. O. at Henryetta.—Kusa Spelter Co. will erect community church. (See Contracts Awarded, Hotels.)

Tex., Alice.—Methodist congregation plans to erect building. Address The Pastor.

Va., Richmond.—Leigh Street Memorial M. E. Church will expend \$3500 for improvements. Address The Pastor.

W. Va., Huntington.—Trinity Episcopal Church will erect rectory; E. N. Alger, Archt., Huntington.

CITY AND COUNTY

Ga., Savannah.—Auditorium.—Auditorium Co. has tentative plans by Henrik Wallin, Savannah (Arthur F. Comer, Associate Archt.) for auditorium; 4 stories with higher addition on roof in rear; 150x190 ft.; Doric-style exterior; 6 columns across front; interior of Roman amphitheater style; cement floor; general shape oval; hallway surrounding building in rear; movable proscenium arch in rear main auditorium; smaller convention hall to seat 100; seating capacity 3500; dumbwaiters to kitchen in basement; cost about \$200,000. (Noted in Sept.)

Ky., Hickman.—Fire Department.—City votes Nov. 2 on \$7500 bonds for fire department; John Pyre, City Clerk.

Miss., Gulfport.—Library.—City is considering erecting Carnegie Library; Geo. M. Foote, Mayor.

Okla., Chickasha.—City Hall.—City will repair city hall lately noted damaged by fire. Address Mayor Coffman.

Tex., Alice.—City Hall.—City is having plans prepared by Sumrall & Enacker for city hall; 2 stories; 26x70 ft.; pressed brick. (Previously noted.)

COURTHOUSES

Okla., Afton.—Ottawa county voted \$75,000 bonds to erect courthouse. Address County Commrs. (Noted in Sept.)

DWELLINGS

Ala., Birmingham.—Birmingham Realty Co. will erect two 2-story frame residences; one on Chestnut Hill to cost \$4000; other on 15th Ave. between 29th and 30th Sts.; cost \$3500.

Ala., Birmingham.—E. L. Aurelius will erect 2-story frame residence at 2529 N. Classen Blvd.; cost \$3000.

Ala., Birmingham.—Wm. M. Spencer will erect 2-story brick and tile building at Miller Heights; cost \$6000.

Ala., Ensley.—D. F. Sugg will erect 2-story concrete and tile building at 25th St. between 20th and 24d Ave.; cost \$3000.

Ala., Mobile.—George T. Stanard will erect 2-story residence on Georgia Ave.; cost \$4000.

D. C., Washington.—Harry A. Kite has plans by Geo. T. Santmyer, 216 Kenos Bldg., Washington, for two 1-story frame and three 2-story brick dwellings at 1009-1011 Douglas St. and 1010-12' 1014-1020 Rhode Island Ave. N. E.; cost \$14,500; construction by owner.

D. C., Washington.—Thomas A. Jameson, 1389 F St. N. E., has plans by L. F. Williams, 1389 F St. N. E., Washington, for seven 2-story brick dwellings 813-15-17 I St. and 11 to 17 Girard St. N. E.; cost \$16,500; construction by owner.

D. C., Washington.—W. H. C. Thompson has plans by G. C. Bailey for two 2-story brick dwellings at 4108-10 Illinois Ave. N. W.; cost \$6000; construction by owner.

D. C., Washington.—Wm. A. Boss, 472 Louisiana Ave. N. W., will erect nine two-story brick dwellings at 537-553 15th St. N. E.; cost \$12,000.

Fla., Kissimmee.—W. I. Barber will erect residence.

Fla., Sanford.—Thatcher Realty Co. is having plans prepared by Ludlum Engineering Co., Kissimmee, Fla., for 10 residences.

Fla., Sarasota.—Mrs. John Ringling will erect residence.

Ga., Atlanta.—J. B. Eason & Son will erect 2-story frame dwelling at 105 Candler St.; cost \$3500; day labor.

Ga., Atlanta.—M. L. Rauschenberg will erect residence; brick veneer; 1 story; cost \$3500; day work.

Ga., Atlanta.—H. F. West, Atlanta National Bank Bldg., is having plans prepared by Morgan & Dillon, Grant Bldg., Atlanta, for dwelling on Wesley Ave.; 2 stories; about 8 rooms; brick; slate roof; oak floor; cost about \$10,000. Address owner. H. F. and A. J. West will erect with day labor 2 dwellings at 512-14 Chestnut St.; 5 rooms each; frame; shingle roof; cost about \$4500; plans by owners, who may be addressed. (Latter dwellings noted in September.)

Ga., Atlanta.—W. Z. Shepard will erect 2 dwellings on Arlington Pl.; cost \$3000; day labor.

Ga., Atlanta.—J. H. Whisenant will erect 3 bungalows; cost about \$9000; day labor.

Ga., Atlanta.—M. L. Rauschenberg will

erect 1-story brick-veneer dwelling at 253 Greenwood Ave.; day labor; cost \$3500.

Ga., Augusta.—Dr. G. A. Traylor has plans by H. T. E. Wendell, 512-13-14 Leonard Bldg., Augusta, for residence; 2 stories; tapestry brick; possibly shingle sides; shingle roof; hardwood floors; tiled baths.

Ga., Augusta.—L. G. Doughty will erect residence; 2 stories; tapestry brick and shingles; furnace heat; hardwood floors first story; 3 tiled bathrooms; tiled conservatory; H. T. E. Wendell, Archt., 512-13-14 Leonard Bldg., Augusta.

Ga., Augusta.—R. C. Neely, Jr., will erect residence; 2 and 3 stories; tapestry brick and shingles; warm-air heat; hardwood floors on first floor; tile bathrooms and conservatory; cost about \$11,000; H. T. E. Wendell, Archt., 512-13-14 Leonard Bldg., Augusta.

Ga., Augusta.—W. S. Hornsby has plans by J. B. Story, 212 Montgomery Bldg., Augusta, for residence; 2 stories; frame; tin shingles; hot-water heat; rift pine floors; tile mantels; cost about \$1500.

Ga., Cordele.—J. H. Churchwell will erect residence; cost about \$10,000.

Ga., Dublin.—W. S. Folsom will erect residence.

Ga., Fort Valley.—J. E. Davidson is having plans prepared by Happ & Shelverton, Macon, Ga., for residence; frame; brick; shingle roof; cost \$6000.

Ga., Jonesboro.—P. H. Camp will erect residence.

Ga., Lumber City.—Dr. Leroy Napier will erect residence.

Ga., Macon.—J. T. Wright will erect residence; stucco; shingle roof; cost \$3500; Happ & Shelverton, Archts., Macon.

Ga., Savannah.—H. B. Slack will probably erect residence.

Ga., Savannah.—Frank Papy will erect two one-story frame residences on Florence St.

Ky., Harlan.—John A. Creech will erect stone residence on Ivy Hill.

Ky., Lexington.—Geo. W. Dunlap will erect residence on W. 6th St.; cost \$5000.

Ky., Louisville.—D. L. Van Culen will erect concrete dwelling at 632 S. 35th St.; cost \$2800.

Ky., Louisville.—Edw. H. Stevens will erect 2 brick-veneer dwellings on Tyler Park Drive; cost \$6000.

Ky., Louisville.—A. M. Reaser will erect 6 brick dwellings on Bismarck Ave.; cost \$12,000.

Ky., Louisville.—C. E. Boaswell will erect 3 frame dwellings on W. Oak St.; cost \$7500.

Ky., Louisville.—F. H. Brown will erect brick-veneer dwelling at Peter and Eastern Parkway; cost \$3000.

Ky., Louisville.—M. J. Murphy will erect brick and tile residence at 2303 Alta Ave.; cost \$3900.

Ky., Maysville.—A. L. West Co., Louisville, Ky., purchased 60 building lots and will erect dwellings.

La., Lake Charles.—J. G. Fournet will erect 2 brick dwellings at Iris and Hodges Sts.; cost \$3000.

Md., Baltimore.—Murray & Haynes, 3017 Chelsea Ave., will erect dwelling at 2908 Alendale St.; 1½ stories; frame; 26x43 ft.; slate roof; hot-air heat; cost \$3500; M. H. Murray, Archt., 3017 Chelsea Ave.; construction by owner.

Md., Baltimore.—C. E. Litzinger, Falls Rd., will erect nine 2-story dwellings on Elm Ave. near 38th St.; 13x38 ft.; brick; stucco front; slag roof; wood floors; electric and gas lights; cost \$1500 each; F. E. Beall, Archt., 306 St. Paul St., Baltimore; construction by owner.

Md., Hagerstown.—Frank Bearinger will erect brick residence on Williamsport Pike.

Mo., Kansas City.—Porter H. Hovey will erect \$15,000 residence at Charlotte St. and Brush Creek Blvd.

Mo., Kansas City.—Harry K. Given, 3434 Woodland Ave., will erect residence at Huntington Rd. and Broadway.

Mo., Kansas City.—B. N. Byers will erect 1½-story frame dwelling at 3529 S. Benton St.; cost \$3500.

Mo., Kansas City.—M. V. Hunter will erect 2-story frame dwelling at 4323 Holly St.; cost \$3000.

Mo., Kansas City.—Terminal Investment Co. will erect 2-story frame dwelling at 232 W. 62d St. terrace; cost \$5550.

Mo., St. Louis.—Girard Realty Co. will erect 3 bungalows. (See Apartment-houses.)

Mo., St. Louis.—Sigmund Hasgall, Treas. of Rosenthal-Sloan Millinery Co., will erect

residence in Bell Pl.; Preston J. Bradshaw, Archt., St. Louis.

N. C., Asheville.—M. C. and C. F. Toms will erect 3 four-room residences on Crescent St.; estimated cost \$3200.

N. C., Charlotte.—D. A. Johnston will erect residence in Millwood.

N. C., Charlotte.—J. B. Jones will erect residence in Colonial Heights.

N. C., Charlotte.—James Harris will erect residence in Colonial Heights.

N. C., Charlotte.—George Moore of Pound & Moore will erect residence in Millwood.

N. C., Charlotte.—John L. Dabbs will erect residence in Millwood.

N. C., Greensboro.—C. D. Golden will erect 2-story frame residence on Charles St.; cost \$3850.

N. C., Hickory.—P. P. Suttlemyre will erect dwelling on 9th Ave.; bungalow type; electric light; cost about \$2500; Q. E. Herman, Archt., Hickory.

S. C., Hartsville.—S. Pressley Coker has plans by Casey & Fant, Anderson, S. C., for dwelling; frame; cost about \$4500; owner will let contract.

N. C., Oxford.—W. G. Pace will erect 6 or 7-room bungalow.

S. C., Spartanburg.—W. T. Finch, Prop. of Finch Hotel, will erect \$6000 residence.

S. C., Spartanburg.—Dr. R. L. Branyon, 117 E. Main St., will erect bungalow on S. Dean St.; 7 rooms; frame; composition roof; hardwood floors; heating plant not determined; cost \$3500; electric fixtures \$100; bids opened Jan. 1; construction begins Mch. 1; Mr. Cecil, Archt., Spartanburg. Address owner. (Lately noted.)

Tenn., Nashville.—C. L. Koellin is having plans prepared by D. Anderson Dickey, Nashville, for brick-veneer bungalow on Vaughn Ave.

Tenn., Nashville.—Miss Mattie Durham is having plans prepared by D. Anderson Dickey, Nashville, for frame bungalow on Eastland Ave.

Tenn., Nashville.—T. H. O'Callaghan is receiving bids to erect bungalow; frame; D. Anderson Dickey, Archt., Nashville.

Tex., Beaumont.—Dr. Jos. Record plans to erect dwelling; cost \$4500.

Tex., Corsicana.—E. E. Hamilton has plans by M. T. Horne, Corsicana, for 2-story residence on W. 2d Ave.; cost \$3500 to \$4000.

Tex., Dallas.—Charles Savilla will erect \$7100 residence.

Tex., El Paso.—Perry-Kirkpatrick Co. will erect 2 brick bungalows; 26x27x30 ft. and 27x37½x20 ft.; cost \$6000.

Tex., El Paso.—Phoenix-El Paso Building Co. will erect brick bungalow in Manhattan Heights; brick; 31x49x20 ft.; cost \$3900.

Tex., Houston.—Dr. Taylor will erect residence in Courtland Pl.

Tex., Houston.—W. D. Cleveland, Jr., will erect residence in Courtland Pl.; plans in progress.

Tex., San Antonio.—W. A. Baity will erect three 6-room dwellings; cost \$10,500.

Va., Richmond.—J. J. Ballou, Jr., will erect brick residence at 2712 Monument Ave.; cost \$20,000; W. Duncan Lee, Archt., Richmond.

W. Va., Moundsville.—Riggs Bros. will erect 2 residences on Washington Ave.; 25x52 ft.; 6 rooms and bath; fireproof; tile and stucco; asphalt shingle roof; wood floors; hot-air heat; electricity and natural-gas lighting; cement sidewalks; cost \$2500 each; construction by owner; private plans. (Lately noted.)

GOVERNMENT AND STATE

Okla., Tulsa.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opened bids to erect postoffice; M. Yeager & Son, Danville, Ill., are lowest bidders at \$185,000; plans call for structure 2 stories and basement; fireproof; stone facing; 28,700 sq. ft. ground area. (Previously noted.)

Va., Norfolk.—Armory.—Committee, Lieut.-Col. B. W. Salomonsky, Chrmn., is having tentative plans prepared by Browne & Tazewell, National Bank of Commerce Bldg., for armory; 185x200 ft.; Italian citadel type; drill hall 125x175 ft.; 7 company rooms, assembly-room, rifle ranges, bowling alleys, swimming-pool, cold-storage room; brick construction; stone trimming; turret tower; cost about \$165,000.

Va., Norfolk.—School Building.—Bureau of Yards and Docks, Navy Dept., Washington D. C., receives bids until Oct. 23 to erect school building at St. Helena Navy-yard; 2 stories; brick; plans and specifications to be

had of bureau or commandant of navy-yard named. (Lately noted as Oct. 3.)

HOSPITALS, SANITARIUMS, ETC.

Ala., Ensley.—Drs. Nat G. Clark, S. H. Mann and M. D. Clements are committee to establish hospital; will have plans prepared by Sidney Ullman, Birmingham, Ala., to enlarge St. John's Episcopal Church on 16th St. and equip for hospital.

HOTELS

Fla., Kissimmee.—Arthur E. Donegan, Pres. of Citizens' Bank, purchased Graystone Hotel property, including hotel, Graystone Casino and office building; is organizing company with Harry W. Thurman and others and will remodel; plans include erecting annex on Paradise Island, etc.

Fla., Miami.—N. Victor Frohling, Miami, is reported preparing plans for hotel; 175 rooms; cost \$300,000; completion by Jan. 1, 1917.

Fla., Tampa.—J. L. Tallevast, Prop. of Manavista Hotel, Bradenton, Fla., leased Commercial Hotel at Franklin and Twigg Sts. and is reported to erect 2 additional stories and remodel.

Ga., Summerville.—Murphy-Henderson Co. Incptd. with \$10,000 capital stock by A. L. Murphy and others; will erect hotel and store building.

S. C., Clover.—Smith Bros. will erect hotel to be operated by Mrs. S. H. Youngblood.

S. C., Spartanburg.—P. D. Smith, lessee, will expend about \$10,000 to improve Finch Hotel; remove lobby stairway and elevator to rear of lobby, construct tile floor, etc.

MISCELLANEOUS

Ky., Louisville.—Citadel.—Salvation Army approved plans by Joseph & Joseph, Louisville, for citadel on Chestnut St.; 50x90 ft.; cream brick with Bedford stone trimmings; 3 stories and basement; portion of building for offices; auditorium 38x49½ ft.; seating capacity 300; removable partitions and posts; boy scout room 32x48 ft.; showers; public laundry with mechanical drying and ironing room; cost \$25,000; will let contract to local contractor.

Md., Baltimore.—Dance Hall.—Garrison Country Club is having plans prepared by John Freund, Jr., 506 Hoffman Bldg., Baltimore, for dance hall at Garrison and Belle Aves.; 1 story; frame; 45x90 ft.

Md., Hagerstown.—Stables.—Hagerstown Interstate Fair Assn. will rebuild 55 stables previously noted damaged by fire; capacity for 325 horses.

Miss., Clarksdale.—Stable.—Guyton-Harrington Mule Co. will erect sales stable; brick.

Okla., Kusa, P. O. at Henryetta.—Dance Hall, etc.—Kusa Spelter Co. will erect building for dance hall, etc. (See Contracts Awarded—Hotels.)

Tex., Abilene.—Restroom.—E. D. Bynum and D. S. Castle will not erect restroom this year. (Lately noted.)

W. Va., Logan.—Dance Hall, Skating Rink, etc.—Logan Loan & Surety Co. will be incorporated with \$25,000 capital stock by Wm. Chaffin, Huntington, W. Va.; R. S. White, Logan, and others; will construct building for dance hall, skating rink, etc.

RAILWAY STATIONS, SHEDS, ETC.

Fla., Winterhaven.—Atlantic Coast Line Ry., J. E. Willoughby, Ch. Engr., Wilmington, N. C., will erect depot.

Ga., Macon.—Macon Terminal Co. opens bids Oct. 12 to erect terminal station; center building 245x84 ft.; baggage and mail room 72x109 ft.; express-room 72x147 ft.; fireproof construction; steel frame; concrete, tile and terrazzo floor; steam heat; two 150 H. P. boilers; cast-iron statuary, bronze finish; refrigerating plant, 600 tons ice daily, 60 gals. cool water per hour; kitchen and lunchroom equipment; metal window and door sash; interior ornamental plaster; marble trimmings; steel reinforced skylight; electric elevators; provision for 18 tracks; reinforced concrete subway, 68 ft. wide by 20 ft. high by 285 ft. long; electric lights; estimated cost of buildings, platform and approaches \$650,000; contractors invited to estimate are J. Henry Miller, Inc., Eutaw and Franklin Sts.; Elkan-Tufts Construction Co., Coca-Cola Bldg.; both of Baltimore, Md.; Cauldwell-Wingate Co., 381 4th Ave.; Wells Bros. Co., 366 5th Ave.; Norcross Bros., 103 Park Ave.; Snare & Triest Co., Woolworth Bldg.; John Pierce Co., 90 West St.; John H. Parker Co., 315 4th Ave.;

all of New York; Metzger & Fisher, 710 Denka Bldg., Philadelphia, Pa.; J. P. Pettyjohn & Co., 212 8th St., Lynchburg, Va.; James Alexander Construction Co., Memphis, Tenn.; T. S. Moudy & Co., Chattanooga, Tenn.; R. M. Walker, Grant Bldg., Atlanta, Ga.; R. H. Smallings & Sons, Macon, Ga.; John T. Wilson Co., Mutual Bldg., Richmond, Va.; E. A. Steinger Construction Co., Victoria Bldg., St. Louis, Mo.; Irwin & Leighton, 126 N. 12th St., Philadelphia, Pa.; and Keyser Bldg., Baltimore, Md.; Alfred Fellheimer, Archt., 7 E. 42d St., New York. (Lately fully detailed.)

Ky., Jackson.—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky., will erect brick passenger station; cost \$25,000.

N. C., Winston-Salem.—Norfolk & Western Ry., J. E. Crawford, Chief Engr., Roanoke, Va., is reported to erect union station to cost about \$500,000; 2 stories; brick; approached by long steel viaduct, which will connect with second floor of building; train platform 600 ft. long.

S. C., Florence.—Atlantic Coast Line Ry., J. E. Willoughby, Ch. Engr., Wilmington, N. C., will erect shed over car yards; 400x100 ft.; capacity of about 100 freight cars; cost about \$10,000.

Va., Bristol.—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, will remodel union station; enlarge waiting-room, remodel lunchroom for restroom, construct ticket office, etc.; construction in charge of J. A. Griner, master car builder of company, Roanoke.

SCHOOLS

Ala., Anniston.—City is having plans prepared by Ben Price, Birmingham, for 6-room school to cost about \$10,000; L. J. Wilke, Mayor. (Lately noted to vote in Nov. on \$20,000 bonds.)

Ala., Birmingham.—Birmingham College is having plans prepared by Wm. T. Warren, Birmingham, for proposed science hall; 3 stories; brick; fireproof.

Ala., Montevallo.—Alabama Girls' Technical Institute is having plans prepared by Wm. T. Warren, Birmingham, for music department building; 2 stories; brick; fireproof; plans ready about Oct. 15. (Previously noted to expend \$100,000 to erect building.)

D. C., Washington.—Georgetown University is having plans prepared by Marsh & Peters, 520 14th St., Washington, for building at Tennallytown Rd. and Rockville Pike; estimated cost, \$300,000; A. J. Donlan, Pres.

Fla., Jacksonville.—Board of Public Instruction employed following architects with Wm. B. Ittner, St. Louis, Mo., to prepare plans for school provided for in \$1,000,000 bond issue lately sold: Mark & Sheftall, R. A. Benjamin, Rutledge Holmes, M. C. Greeley and H. J. Klutho, all of Jacksonville. (Previously noted.)

Fla., Live Oak.—Board of Public Instruction of Suwannee County, J. W. O'Hara, Secy., receives bids until Nov. 2 to erect school; also for heating and plumbing systems in building; plans and specifications at Live Oak; 2 stories and basement; about 60x90 ft.; 18 classrooms, laboratories, auditorium, etc. (Previously noted.)

Fla., Okeechobee.—School Dist. will vote on \$40,000 bonds; date of election not set.

Fla., Ocala.—Pinellas County School Board, Clearwater, Fla., is having plans prepared by Lester Avery, Clearwater, to erect school building; 2 stories; 38x58 ft.; 4 rooms; sand-lime brick; asbestos shingle roof; no heating or lighting plant; date of opening bids not decided. Address Archt. (Noted in Sept. to cost \$4000.)

Fla., Tropico.—Board of Public Instruction of Dade County, Miami, Fla., will erect school.

Ga., Waycross.—City defeated \$35,000 bonds to acquire and equip Y. M. C. A. building for school. (Lately noted.)

La., Zachary.—East Baton Rouge School Board, C. R. Reagan, Principal, has plans by J. W. Smith, Monroe, La., for school building; 65x80 ft.; frame; White asphalt slate shingle roof; Waterman-Waterbury heat; cost about \$8000; bids opened Oct. 7. (Noted in Sept.)

Miss., Hattiesburg.—Rock Hill Consolidated School Dist. receives bids until Oct. 7 to erect frame school; plans and specifications at office of Herbert Gillis, Chanery Clerk.

Mo., St. Louis.—Archbishop J. J. Glennon will erect parochial school and church. (See Churches.)

Mo., St. Louis.—Cathedral of St. Louis will erect school; 10 or 12 rooms, assembly

hall, etc.; accommodations for 400 students; cost \$75,000 to \$100,000; considering sites at joining parish residence and Maryland and Newstead Aves.; Rev. Francis Gilliam, Pastor.

N. C., Asheville.—City votes Nov. 2 on \$200,000 bonds to erect high school, improve grounds, etc. Address The Mayor. (Noted in Aug.)

N. C., Edenton.—School Board will petition Town Council for election on \$35,000 bonds to erect school.

N. C., Greensboro.—City is having plans prepared by Harry Barton, 408-09 McKdon Bldg., Greensboro, for school on S. Spring St.; approximately 70x75 ft.; 2 stories; 3 rooms; terra-cotta block and brick veneer; wood floors and partitions; tin roof; steam heat; bids opened about Oct. 20. (Lately noted.)

Okla., Norman.—Board of Public Affairs, Oklahoma City, opens bids Oct. 27 to erect science hall for University of Oklahoma; 63x125 ft.; reinforced concrete and stone; green tile roof; reinforced concrete and cement floors; heat and lighting from central station; electric elevator; cost \$90,000; Hawk & Parr, Archts., Security Bldg., Oklahoma City. Address Board of Public Affairs. (Noted in Sept.)

S. C., Florence.—Florence School Dist. will vote on \$52,000 school bonds; bonds previously voted, but issue declared illegal. Address Dist. School Trustees.

S. C., Townsville.—City deferred erecting school until after Legislature can pass act in Feb. validating bonds; plans by C. Gaden Sayre, Anderson, call for structure 68x80 ft.; 6 classrooms; brick veneer; metal roof; cost \$6000. (Noted in Aug.)

Tenn., Bristol.—City votes Oct. 7 on \$60,000 bonds to erect high school; Paul Harrell, Secy., Board of Education. (Noted in June.)

Tenn., Nashville.—City is having plans prepared by Marr & Holman, Nashville, for school building at 6th Ave. and Jefferson St.; 3 stories; 18 rooms and auditorium; brick; gravel roof; wood joist floor construction; cost about \$75,000; steam heat \$8000; bids opened about Dec. 1. (Noted in Sept.)

Tex., Belton.—Consolidated School Dist. No. 20 votes Oct. 14 on \$5000 bonds to erect high school building. Address Dist. School Trustees.

Tex., Belton.—Consolidated School Dist. No. 115, including Summers Mill and Elm Creek Dist., voted \$2000 bonds to erect school. Address Dist. School Trustees.

Tex., Brenham.—Berlin School Dist. voted tax; will erect school. Address Dist. School Trustees.

Tex., Dallas.—Board of Education will erect Oak Cliff and Winnetta schools; bids opened Oct. 5; Wm. B. Ittner, Archt., St. Louis, Mo. (Previously noted.)

Tex., Sumner.—School Board is having plans prepared by C. G. Curtis, 18½ Lamar Ave., Paris, Tex., for school; 3 rooms and auditorium; frame.

Tex., Lytle.—Trustees, A. E. Hester, Secy., open bids Oct. 16 to erect 2-story-and-basement brick addition to high school; brick; tin roof; wood floors; cost \$8000; plans and specifications at office of Mr. Hester, Lytle and Henry T. Phelps, Archt., 717 Gunther Bldg., San Antonio. (Lately noted.)

Va., Richmond.—C. P. Walford, Chk. and Suprv. of Public Schools, Administration Bldg., 805 E. Marshall St., receives bids until Oct. 22 to erect and complete school on Fulton Hill at Orleans and Marshall Sts.; separate bids to erect building, also to furnish and install heating and ventilating in same; plans and specifications at office of Carmel & Johnston, Archts., Chamber of Commerce Bldg., Richmond.

W. Va., Elkhorn.—Board of Education of Elkhorn Dist. will erect 2 additional rooms to colored school; bids opened Oct. 6; Dr. S. H. Nell, Pres. of Board; plans by R. Austin, Elkhorn, call for addition 2 stories; 31x22 ft.; stone and brick; asbestos roof; white pine floor; cost about \$3500. Address T. A. Little, Maybury, W. Va.

W. Va., Man.—Triadelphia School Board will erect high school; 70x75 ft.; brick and wood; composition built-up 4-ply roof; wood floors; hot-air heating; no lighting plant; bids opened Oct. 4; Beddow, McCorkle & Wilson, Archts., Logan, W. Va., who may be addressed. (Noted in Sept.)

STORES

Ala., Birmingham.—E. T. Wilcox will erect 2-story brick building at 1032 28th St. South; cost \$5000.

Ala., Oneonta.—Frank Holcombe will erect lately-noted building; 22x75 ft.; 2 stories;

lower floor for store; upper floor for offices; brick; tar and gravel composition roof; wood floors; electric lights; cost \$3000; plans and construction by owner. (See Machinery Wanted—Metal Ceiling, etc.)

Ala., Alabama City.—Chas. J. Cargal will erect 2 brick business buildings.

Fla., Tampa.—Mrs. Mary L. Moses, O'Neill & Stone, Agts., is having plans prepared by Logan Bros., Tampa, for business block; 4 stories; brick.

Ga., Atlanta.—F. J. Cooledge of Cooledge & Sons are considering erecting 4 stores at 238, 332 and 334 Marietta St.; cost about \$50,000.

Ga., Atlanta.—Feld Realty Co. will expend \$600 to alter and repair building at 159-61-63 Whitehall St.

Ga., Atlanta.—W. H. Burt will erect building at 67 E. Mitchell St.; 54x82 ft.; 2 stories; cost \$9000.

Ga., Camilla.—Dr. Erle Thornton has plans by Thomas M. Campbell, 512 Chronicle Bldg., Augusta, Ga., for store and office building; 26x35 ft.; 3 stories; brick; tin roof; wood and cement floors; cost \$8000; bids opened Oct. 2.

Ga., Columbus.—W. J. Sykes is reported contemplating erecting 2 brick stores at 204-26 30th St.

Ga., Fitzgerald.—Mrs. J. H. Ennis will erect 2 brick stores; 2 stories.

Ga., Summerville.—Murphy-Henderson Co. will erect hotel and store building. (See Hotels.)

Ky., Ashland.—Wm. Salisbury, Mayor, will erect 2-story store building on 22d St.; brick; cost \$4000; upper floor for apartments.

Ky., Harlan.—G. A. Eversole will erect brick business building.

Ky., Harlan.—G. T. Cawood will erect brick business building on Central St.

Ky., Harlan.—G. W. Green will erect brick business building on Central St.

Ky., Pineville.—H. J. Weller is reported to erect 2-story brick business building.

Mo., Kansas City.—Badger Lumber Co. will erect 2-story brick business buildings at 539-41 Westport Ave.; cost \$10,000.

Mo., Kansas City.—W. J. Rose will erect 1-story brick business building at 2544-46 Jackson St.; cost \$6000.

Mo., Steele.—N. Gibson, H. E. Doerner and J. W. Yarbrough will erect 6 store buildings; about 25x30 ft.; brick; composition or iron roof; architect not selected. (Lately noted damaged by fire.)

Mo., St. Louis.—Trade Realty & Building Co. will erect 2-story store and tenement-house at 4354-56 58th St.; cost \$10,000; construction by owner.

N. C., Asheville.—C. A. Raysor purchased structure on north side of Pack Square and contemplates remodeling; will install front, etc.

N. C., Asheville.—D. B. McCrary will erect store building; 42x70 ft.; brick; tin roof; pine floors; no heating plant; city lighting; cost \$5000. (Noted in Sept.)

N. C., Fayetteville.—W. F. Smith Co. will rebuild structure lately noted damaged by fire at loss of \$10,000.

N. C., Hendersonville.—H. M. Flynn will erect brick business building.

N. C., Hickory.—City Feed Co. is having plans prepared by Q. E. Herman, Hickory, for store; 2 stories and basement; 40x90 ft.; brick; glass front.

N. C., Hickory.—J. L. Riddle and K. C. Menzies are having plans prepared by Q. E. Herman, Hickory, for store; 2 stories; 34x90 ft.; brick.

Okla., Oklahoma City.—Williamson-Halsell-Frazier Wholesale Grocery Co. purchased site adjoining present location at Santa Fe Ave. and 1st St. and will erect building.

Tex., Avery.—Swann & Myers and W. H. Cox are reported to erect brick buildings.

Tex., El Paso.—Jolly & Morris will erect 2-story addition to building 515 Prospect Ave.; 31x30x25 ft.; cost \$5500.

Tex., Houston.—Nat Ewing will erect additional store to building at 3904 Garrett St.; cost \$3200.

Tex., San Antonio.—United Cigar Stores Co. will expend \$3000 to alter building on E. Houston St.

Tex., Wichita Falls.—A. F. & A. M. plan to erect business and lodge building. (See Association and Fraternal.)

Va., Graham.—Geo. A. Reynolds will erect business building.

THEATERS

D. C., Washington.—Fayette T. Moore, 2039 New Hampshire Ave., Prop. of Garden Theater, purchased property at 418-30 8th St. N. W. and may remodel as addition to theater.

Ky., Lexington.—Berryman Realty Co. will remodel old opera-house on N. Broadway.

Mo., St. Louis.—Gertrude Investment Co., J. I. Landay, Prest., will convert Loredel Natatorium, near Taylor Ave. and Olive St., into moving-picture theater; will redecorate, treat walls and ceilings in Trellis panels, construct inclined floor; seating capacity, 1400; 34 loges with seating capacity of 8 each; promenade on east and west sides, 15x125 ft.; Clymer & Drischler, Archts., St. Louis.

Va., Norfolk.—Neff & Thompson prepared plans and opened bids for improvements to Forbee-Jones store on Granby St. for moving-picture theater; about 25x110 ft.; new

steam heating; cost about \$3500; Seay Bros., Norfolk, are lowest bidders.

W. Va., Huntington.—J. Tracey Troeger contemplates erecting moving-picture theater on 5th Ave.; cost \$50,000 to \$75,000.

WAREHOUSES

Ky., Lexington.—Farmers' Home Tobacco Warehouse Co. will enlarge warehouse.

Tex., El Paso.—Lander Lumber Co. will erect office and warehouse building. (See Bank and Office.)

Tex., Fort Worth.—G. W. Owens Lumber Co. will erect 1-story brick warehouse.

W. Va., Huntington.—Huntington Tobacco Warehouse Co. will erect storage warehouse; brick, wood and concrete; 16x160 ft.

W. Va., Huntington.—John S. Farr will erect warehouse at 16th St. and 2d Ave.; 50x100 ft.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

D. C., Washington.—Wm. P. Kellogg let contract to Louis Emmert, 1869 Wyoming Ave. N. W., Washington, to erect 2-story brick flat at 2125-27 18th St. N. W.; cost \$5600.

D. C., Washington.—John L. Warren let contract to J. E. Fox, 37 R St. N. E., Washington, to erect 3-story brick apartment-house at 1630 Irving St. N. W.; cost \$40,000; Hunter & Bell, Archts., 411 Southern Bldg., Washington.

Fla., St. Petersburg.—Mrs. Lucile Carlton let contract to E. H. Lewis, St. Petersburg, to erect apartment-house; 4 four-room apartments.

Ga., Augusta.—Clarence Wigfall let contract to erect store and apartment building. (See Stores.)

Mo., St. Louis.—C. Heber let contract to A. J. McGowan, St. Louis, to erect 2-story tenement-house at 5029 N. Market St.; cost \$4500.

Mo., St. Louis.—H. E. Fredrickson let contract to O. Swanson, St. Louis, to erect 2-story brick tenement-house at 3914 N. 20th St.; cost \$3500.

Mo., St. Louis.—Jos. Stangler let contract to Geo. Halla, St. Louis, to erect 2-story tenement-house at 5322 Lansdowne St.; cost \$6000.

Mo., St. Louis.—M. Reinhardt let contract to J. M. Moran, St. Louis, to erect 2 two-story tenements at 4143-49 Shaw Ave.; cost \$10,000.

Mo., St. Louis.—M. J. Gilmore let contract to Scallie & Greeninger, St. Louis, to erect 2-story tenement-house at 5577 Highland Ave.; cost \$4000.

Mo., St. Louis.—L. Burkhardt let contract to O. Kubalsky, St. Louis, to erect 2-story tenement-house at 2215 Clarence St.; cost \$6000.

Mo., St. Louis.—Mrs. K. Gaertner let contract to J. P. Reichers & Son, St. Louis, to erect 2-story tenement-house at 2312 Pope St.; cost \$4500.

Mo., St. Louis.—Nellie Moran let contract to J. M. Moran, St. Louis, to erect 2 two-story tenements at 4052-58 McRee St.; cost \$10,000.

Tenn., Memphis.—Mrs. W. Simonson let contract to Memphis Wrecking Co., Memphis, to erect apartment-house; 2 stories; 36 rooms; brick; gravel roof; cost \$4000.

ASSOCIATION AND FRATERNAL

Ga., Dalton.—A. F. & A. M. let contract to Hamilton & Williams Contracting Co., Dalton, to erect Masonic Hall at Hamilton and Emery Sts.; 2 stories; 25x50 ft.; red brick; composition roof; concrete floor; electric light; plans by Manly Jail Works, Dalton.

Tenn., Knoxville.—Masonic Temple Assn. let contract to J. M. Dunn & Son, Knoxville, to remodel Masonic Temple on Locust St.; 72x90 ft.; ordinary construction; gravel roof; wood floor; steam heat; electric light; cost \$20,000; Albert B. Bauman, Archt., Knoxville. (Previously noted.)

Tex., Beeville.—A. F. & A. M. let contract to Newman Bros., Kenedy, Tex., to erect 20-ft. extension to building, provide new roof, remodel front, etc.; cost \$4370; Steppenson & Heldenfels, Archts., Beeville.

Tex., Greenville.—Fred Ende Lodge No. 57, I. O. O. F., let contract at \$17,000 to Shepherd Bros., Greenville, to erect lodge building.

BANK AND OFFICE

Ala., Selma.—City National Bank is reported to have let contract to H. A. Lockhart, Birmingham, Ala., to erect bank building; cost \$34,000; 2 stories; concrete, brick and steel.

Md., Baltimore.—J. Marshall Thomas let contract to erect store and office building. (See Stores.)

Md., East New Market.—George Woolford, Cambridge, Md., let contract to erect building to contain offices, etc. (See Miscellaneous.)

N. C., Kinston.—Mrs. Alice Hunter let contract to erect store and office building. (See Stores.)

N. C., Winston-Salem.—Col. G. W. Hinchaw let contract to erect store building with rear office extension. (See Stores.)

Tenn., Nashville.—Sixth Avenue Property Co. let contract to erect office and theater building. (See Theaters.)

CHURCHES

Ark., Gillett.—St. Paul's Lutheran Church let contract to Henry Beveridge to erect building; 36x56 ft., with altar niche, furnace-room, etc.; brick veneer; metallic roof; inclined wooden floor; cost \$4000; hot-air heat, \$250; acetylene lights, about \$200; all contracts let except pews. Address A. H. Richter, Gillett. (Lately noted.)

Ky., Lexington.—Providence Christian Church let contract to Frank Corbin, Lexington, Ky., to erect building about 6 mi. from Lexington on Nicholasville Pike; brick; stone trimmings; seating capacity 800; cost \$20,000.

Tex., Chillicothe.—Methodist Church let contract to Peter Garrett, Payton, Tex., to erect building; 2 stories; brick veneer; cost \$16,000. (R. H. Stuckey, Archt., Chillicothe, lately noted receiving bids to erect church.)

W. Va., Summit Point.—Methodist Episcopal Church South, Rev. C. H. Cannon, pastor, let contract to Glazie Bros., Winchester, Va., to erect building; 44x77 ft.; brick and stone; slate roof; wood floor; heating and lighting not decided; cost \$10,000; J. W. Woltz, Archt., Waynesboro, Pa. (Noted in August.)

CITY AND COUNTY

La., New Orleans.—Warehouse and Stable, Board of Levee Commrs. of Orleans Levee Dist. let contract to Leon C. Leone, 837 Esplanade Ave., New Orleans, to erect combination warehouse and stable; 30x56 ft.; 1 story; brick; composition roof; cement-paved floors; electric lights; cost \$3500; D. W. Benson, Archt., 201 New Orleans Court Bldg., New Orleans. (Lately noted.)

Mo., St. Louis.—Zoo.—Zoological Society of St. Louis let contract to Harry Hirsch, St. Louis, to erect zoo building in Forest Park; 75x50 ft.; 1 story; 25 ft. high; roof of skylight glass; 10 cages; cost \$15,000; Tom P. Barnett Co., Archt., 724 Central National Bank Bldg., St. Louis; Clinton H. Fisk, Ch. Engr. Constr., St. Louis. (Lately noted.)

N. C., Jacksonville.—Jail.—Onslow County Commrs. let contract to Southern Building Co., Goldsboro, N. C., to erect jail; 32x50 ft.; reinforced concrete; Barrett specification roof; reinforced concrete floors; hot-air heat; electric lights; cost \$10,000; Frank B. Simpson, Archt., Raleigh, N. C. (Noted in August.)

DWELLINGS

Ala., Birmingham.—S. N. Gore let contract to J. J. Holmes, Birmingham, to erect residence on Norwood Blvd.; 6 rooms; wood and rock; patent shingle roof; oak floors; hot-air heat; cost \$3500; Ben Price, Archt., Birmingham.

Ala., Birmingham.—P. J. Chambers let contract to E. A. Smith, Birmingham, to erect lately-noted residence on Woodland Ave.; 2 stories; frame; 7 rooms, bath and sleeping porch; composition shingle roof; ordinary floor construction; electric lights; cement sidewalks; cost \$3000; hot-air heat, \$130; J. G. Ringer, designer, 10 Steiner Bldg., Birmingham. (See Machinery Wanted—Plumbing, etc.)

Ark., Newport.—D. W. Bryant let contract to W. H. Snetser, Newport, to erect cottage in West End.

D. C., Washington.—D. B. Gish let contract to C. Green, 3223 Sherman Ave., Washington, to erect six 2-story brick dwellings at 2207-2217 35th St. N. W.; cost \$10,200.

D. C., Washington.—Louise Taylor let contract to C. H. Taylor, 1945 Calvert St. N. W., Washington, to erect 2-story pebble-dash dwelling at 3506 Macomb St. N. W.; cost \$6500; Raymond Moore, Archt., Friendship Heights, Md.

Fla., Palmetto.—A. J. Kirkwood, Ingersoll, Ontario, Canada, let contract to Palmetto Construction Co., Palmetto State Bank Bldg., Palmetto, to erect lately-noted residence; 2 stories; ordinary construction; steam heat to be installed in fireplace; city lighting; cost \$5000; A. C. Price, Archt., of Palmetto Constr. Co. (See Machinery Wanted—Heaters (Steam).)

Fla., Palmetto.—Mr. Zeller let contract to Palmetto Constr. Co., Palmetto State Bank Bldg., Palmetto, to erect bungalow; construction begun; A. C. Price, Archt., Palmetto.

Fla., Sarasota.—M. A. and W. J. Vanderloot, Chicago, let contract to Geo. L. Lysat, Sarasota, to erect dwelling at Indian Beach; 2 stories; frame; shingle roof; wood floors; wired for lighting; cost about \$4000; H. H. Hall, Archt., Sarasota. (Noted in September.)

Fla., Sparta.—A. K. Chambliss let contract to Mr. Wiley to erect residence.

Ga., Augusta.—Dr. James R. Littleton let contract to A. J. Martin Co., Augusta, to erect residence on McDowell St.; 2 stories; cost \$5500.

Ga., Savannah.—W. C. Lawson let contract to Standard Investment Co., Savannah, to erect residence; 2 stories; brick; tiled bathrooms; tile porch; cost \$8000; I. P. Crutchfield, Archt., 104 Congress St., Savannah.

Ga., Savannah.—Keith M. Read let contract to Chatham Land & Hotel Co., Savannah, to erect residence in Chatham Crescent.

Md., Cumberland.—Benjamin R. North will erect double brick dwelling at Madison & Valley Sts.; Lashley & Rank, Contrs., Cumberland.

Md., Cumberland.—Chas. W. Messman let contract to Geo. Martin, Cumberland, to erect frame dwelling and shed on Shawnee Ave.

Md., Cumberland.—Otto Hewitt let contract to James H. Read, Cumberland, to erect double brick dwelling on Mary St.

Mo., Kansas City.—Ed E. Aleshire, 624 Searrett Bldg., let contract to W. C. Johnson & Son, 26th and Garfield Ave., Kansas City, to erect residence at 59 Wyandotte St.; 24x37 ft.; stone and frame; porches; slate roof; oak floors; vapor vacuum heat; lighting not determined; cost \$6500; Madole & Birdsell, Archts., Kansas City. (Lately noted.)

Mo., Joplin.—W. D. Leyerle, Jonesboro, Ill., has plans by and let contract to W. E. Caraway, Joplin, Mo., to erect 10 cottages; lately noted; 26x38 ft.; 1 story; frame; shingle roof; yellow-pine flooring and trim; stone foundations; electric wiring; concrete sidewalks and steps; cost \$1350 each. (See Machinery Wanted—Hardware and Millwork.)

N. C., Winston-Salem.—W. C. Brown let contract to W. L. Snyder, Winston-Salem, to erect frame dwelling on 7th St.; cost \$4000.

Okla., Muskogee.—J. D. Simms let contract to Ellis & Thomas, Muskogee, to erect \$5000 residence at 12th St. and Boston Ave.

Okla., Kusa, P. O. at Henryetta.—Kusa Spelter Co. let contract to erect dwellings. (See Hotels.)

Okla., Tulsa.—W. V. Biddison, 1617 S. Denver St., let contracts separately to erect

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

residence; 28x41 ft.; frame; shingle roof; oak floors; cost \$3000; hot-air heat, \$200; Laurence E. Blue, Archt., Tulsa. (Lately noted.)

S. C., Gaffney.—W. K. Davenport let contract to L. Baker, Gaffney, to erect California-type bungalow at Petty and Jeffries Sts.

S. C., Florence.—Lewis J. Rollins let contract to Tyler Bros., Florence, to erect dwelling at Elm and Dargan Sts.; 2 stories; 10 rooms; frame; tile roof; hardwood floor; electric light; cost \$7000; plans by contractors. (Noted in Sept.)

Tex., Carlton.—Carl Stephens, Dublin, Tex., has contract to erect residence.

Tex., Corsicana.—E. E. Hamilton let contract to E. L. Barnes, Corsicana, to erect 2-story residence; cost \$3248.

Tex., El Paso.—Macon Scott Realty Co. let contract to Walter Spittler, 3403 Montana St., El Paso, to erect 8 bungalows at Manhattan Heights; 5 rooms each; brick; shingle and composition roof; cost \$24,000; plans by owner. (Contractor noted in Sept. to erect bungalow at Manhattan Heights.)

Tex., El Paso.—T. J. Couzens let contract to Perry-Kirkpatrick Building Co., El Paso, to erect residence on Bliss St.; 2x50 ft.; brick; shingle roof; pine and white maple floors; cost \$4000; hot-air heat, \$160; S. E. Patton, Archt., 509 Caples Bldg., El Paso. (Noted in September.)

Tex., Galveston.—R. J. Miller, 2109 L St., let contract to M. C. Bowden, 1801 C St., Galveston, to erect 4 residences at 3302 P½ St.; brick, wood and metal; metal shingle roof; cost \$5500. (Lately noted.)

Tex., Houston.—T. J. Donoghue let contract to D. A. Crawford, Houston, to erect residence on Courtland Pl.; brick; cost about \$25,000.

Va., Newport News.—J. R. Knight let contract to M. R. Piland, Newport News, to erect bungalow; 34x65 ft.; brick and frame; slate roof; wood floors; hot-water heat to cost \$450 (contract awarded); Herbert W. Simpson, Archt., 502 Paul-Gale-Greenwood Bldg., Norfolk. (Noted in September.)

Va., Norfolk.—B. F. Trusty let contract to A. M. Johnson, Norfolk, to erect 2-story frame residence on Fremont Ave.

Va., Portsmouth.—Jos. M. Hartlove let contract to Wm. H. Taylor, Portsmouth, to erect residence; 2 stories; frame; metal roof; cost \$3900.

GOVERNMENT AND STATE

Ga., Atlanta.—Penitentiary.—Dept. of Justice, Office of Supt. of Prisons, Washington, D. C., let contract at \$17,125 to Mesker Bros. Iron Co., St. Louis, to furnish steel cell fronts and mechanical locking devices for cell blocks in west main cell wing of United States Penitentiary. (Lately noted.)

Ky., Louisville.—Cottage.—Bureau of Fisheries, Dept. of Commerce, Washington, D. C., let contract to Sanford Vaughn, Jr., Louisville, to erect cottage for fish culturist; frame; wood shingle roof; wood floors; cost, without equipment, \$2300; heating plant, \$300; all contracts let. (Noted in September.)

N. C., Charlotte.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Act. Super. Archt., Washington, D. C., let contract at \$192,692 to John G. Unkofer & Co., Minerva, Ohio, to erect postoffice lately noted; 2 stories and basement; 112x162 ft.; limestone construction; fireproof; composition, tin and copper roofing; reinforced concrete floors; steam heat; electric lights; construction begins about Oct. 11. Address contractors. (See Machinery Wanted—Boilers, etc.; Vacuum Cleaner; Dumbwaiter.)

HOSPITALS, SANITARIUMS, ETC.

Mo., Kansas City.—Kansas City Structural Steel Co., Kansas City, has contract for 348 tons structural steel for St. Joseph's Hospital, for which Fuller Construction Co., Kansas City, has general contract; plans by Wilder & Wight, 4th Floor, First National Bank Bldg., Kansas City, call for structure with 167,000 sq. ft. floor space; fireproof; brick and terra-cotta trim; composition roof; 2 electric elevators; cost about \$400,000. (Noted in Sept.)

N. C., Tarboro.—County Comms. let contract at \$10,693 to J. B. Stout & Co., Sanford, N. C., to erect Edgecombe General Hospital, exclusive of plumbing, heating, gas plant and furnishing; 30x90 ft.; stone and brick veneer; metal tile roof; wood floor; accommodations for 50 patients; Benton & Moore, Archts., Wilson, N. C.

Tenn., Bolivar.—State let contract to J. R. Howell to erect laundry and ice plant at Western Hospital; 90x90 ft.; 2 stories; brick; metal roof; concrete floors; cost \$7000. Address Dr. Walter Stewart, Bolivar. (Noted in September.)

Tenn., Chattanooga.—Trustees Erlanger Hospital let contract to erect ward for contagious diseases; 1 story; 2 wards for 4 beds each, 8 private rooms, sterilizing-room, nurses' quarters, etc.; 30x100 ft.; cost \$6000; W. H. Sears, Archt., Chattanooga; also let contract for boiler-room to cost \$2000. (Previously noted.)

Tex., El Paso.—Miss Elizabeth M. Kelly let contract to Mayfield & Shaw, El Paso, to erect sanatorium on Altura Blvd.; 50x220 ft.; brick; gravel and asphalt roof; cement floor; cost \$18,000; steam heat, \$1000; conduit lighting, \$400; Gibson & Robertson, Archts., El Paso; material bought. (Previously noted.)

HOTELS

Ala., Haleyville.—W. H. Cleere let contract to Joy-Marriott Co., Jefferson County Bank Bldg., Birmingham, Ala., to erect hotel; 2 stories; 30 rooms; brick veneer; cost \$18,000; plans by contractor; steam heat, plumbing and electric-light separate, not let. (Previously noted.)

Okla., Kusa, P. O. at Henryetta.—Kusa Spelter Co. let contract to erect hotel, also dozen or more dwellings; will erect building for dance hall, bowling alleys, billiard and pool rooms, assembly-room, etc.; also erect community church. (Noted in Sept. to erect more than 100 dwellings.)

MISCELLANEOUS

Ala., Birmingham.—Restaurant.—A. A. Adams, Agt., let contract to M. C. Banks, Birmingham, to erect restaurant at 110 20th St.; 50x100 ft.; 2 stories; brick, tile and fireproofing; tar and gravel roof; tile floors; cost \$15,000; steam-heating plant, \$5000; electric lights, \$500; Ben Price, Archt., Birmingham. (Lately noted.)

Ala., Scottsboro.—Stable.—J. A. Proctor & Co. let contract to Matthews Bros., Scottsboro, to erect stable; brick; 33x100 ft.; 2 stories.

Md., Baltimore.—Market-house.—Greenwald Packing Co. let contract to Consolidated Engineering Co., 243 Calvert Bldg., Baltimore, to erect market-house at 323 W. Pratt St.; 100x26 ft.; 2 stories; brick and joist; slag roof; wood floors; cost \$9000; Otto Kubitz, Archt., 606 Hoffman Bldg., Baltimore.

Md., East New Market.—Community Building.—Geo. Woolford, Cambridge, Md., has contract to erect community building to contain postoffice, town hall, drug store, offices and shops; Brinkloe & Canning, Easton, Md.

Mo., Kansas City.—Home.—G. L. Nettleton Home Assn. let contract to Geo. L. Brown & Son, 1300 Rialto Bldg., Kansas City, to erect home for aged near Swope Park; cost about \$90,000; Wilder & Wight, Archts., Kansas City. (Previously noted.)

SCHOOLS

Ark., Bald Knob.—School Board let contract to J. Collison, Bald Knob, to erect school, and to W. S. King, Lonoke, Ark., for heating plant; R. P. Morrison, Archt., 620 State Bank Bldg., Little Rock; structure 79x104 ft.; composition roof; wood floors; cost \$18,000; gravity steam heat, \$2000. (Noted in Sept.)

Ark., King.—Rural Special School Dist. No. 70 let contract to Dwyer & Cupp, Nashville, Ark., to erect school; 40x60 ft.; ordinary brick construction; wood floors; cost \$4589.62; Jas. H. Bliss, Archt., Hope, Ark. Address contractors. (Lately noted.)

Fla., Sneads.—Trustees let contract to Pooser & Marley, Marianna, Fla., to erect brick school; cost about \$5000.

Md., Baltimore.—Roland Park Country School let contract to Roland Park Co., Roland Park, Md., to erect school on 40th St. near Kittery lane; main building 225.2x44.3 ft.; west wing 128.3x29.2 ft.; east wing 90.5x21.2 ft.; frame construction; tile roof; ordinary floor construction; vacuum steam heat; electric lights; Wyatt & Nolting, Archts., Keyser Bldg., Baltimore. (Noted in August.)

Md., Dublin, R. D. from Darlington.—Harford County School Board, Belair, Md., let contract to Dennis L. Shanahan to erect high school; shape of maltese cross; manual training and domestic science equipment in basement.

N. C., Greenville.—Trustees let contract at \$19,935 to J. J. Stroud, Southern Pines,

N. C., to erect high-school building; 80x110 ft.; 2 stories and basement; 16 classrooms; auditorium to seat 500; exterior Cherokee repressed brick manufactured by Johnson & Johnson, Raleigh, N. C.; terra cotta trimmings manufactured by New Jersey Terra Cotta Co., Trenton, N. J.; hardwood floors; ordinary construction; Carey roof; steam heat; electric wiring; let heating contract to American Heating & Ventilating Co., Richmond, Va., and plumbing to S. T. Hicks, Greenville; H. E. Bonitz, Archt., Wilmington, N. C. (Lately noted.)

Okla., Marble City.—Dwight's Mission let contract to Ellis & Thomas, Muskogee, Okla., to erect boys' dormitory; cost \$7000.

Okla., Sand Springs.—Tulsa County Comms. let contract to Bradley & Boydell, Sand Springs, to erect negro school; brick and cement; cost \$2488; Geo. Winkler, Archt., Tulsa. (Lately noted.)

S. C., Rannockburn.—Trustees let contract to W. M. Phillips, Florence, S. C., to erect school building; frame; cypress shingle roof; white pine floors; L. McD. Hicks, Archt., Florence. Address Contr. (Noted in Sept.)

Tenn., Nashville.—Board of Education let contract for concrete work on Glenn School to M. A. Lightman & Co., Nashville; also let contract for plumbing and steam heating for Glenn School and plumbing for Lockeland School to N. S. Jonte, Nashville. (Other contracts noted Sept. 30.)

Tex., Gatesville.—Carl Stephens, Dublin, Tex., has contract to erect brick and rock school.

Tex., Acme.—Trustees let contract at \$8000 to Tom Reno, Quanah, Tex., to erect school building; brick.

Tex., Huntsville.—Sam Sparks, Prest. of State Normal Board of Regents, Austin, let contract at \$68,900 to Gross Construction Co., Waco, Tex., to erect fireproof science building at Sam Houston State Normal School; 3 stories; 155x69 ft.; Barrett specification roof; concrete and steel floor; plans and specifications at office of H. F. Estill, Prest. of school at Huntsville, and Endress & Watkins, Archts., Austin and Houston. (Lately noted.)

Tex., Norton.—Trustees let contract to J. W. Obrian, Abilene, Tex., to erect school in Hodge addition; 1 story; 4 rooms; 23x20 ft., with hall 80x60 ft.; brick and frame; tar and gravel roof; yellow pine floors; cost \$1200; Smith heating system, \$312; D. S. Castle, Archt., Abilene. Address Dr. W. W. Mitchell, Norton. (Lately noted.)

Tex., Paris.—City, Ed H. McCulston, Mayor, let contract to Walter White, Paris, to erect high school annex; 3 stories; 28 rooms; hollow interlocking tile and brick-veneer; tin or composition roof; pine floors; split system of heating; cost \$35,000; Barry & Smith, Archts., Paris. Address Contr. (Noted in Sept.)

Tex., Orange.—Cove School Dist. Trustees let contract at \$7265 to L. T. Grubbs and D. O. Bennett, Orange, to erect school; brick and cement; 3 rooms and auditorium 44x66 ft. (Lately noted.)

Tex., Pasadena.—Pasadena School Dist. voted \$5000 bonds and let contract to repair manual-training and domestic-science departments, damaged by storm. (Lately noted.)

Tex., Palestine.—City let contract to John Gaught, Palestine, to erect addition to Second Ward School on Jackson St.; 4 rooms; brick; metal roof; Texas pine floor; electric light; cost \$8000; construction begun. (Noted in Sept.)

W. Va., Parkersburg.—Board of Education let contract at \$3200 to Iron Clay Brick Co., Columbus, Ohio, for 160,000 salt-glaze bricks for use in construction of high school, for which Roche-Bruner Building Co., Cincinnati, has general contract at \$234,026; Frank L. Packard, Archt., Columbus, Ohio. (Other contracts lately noted.)

W. Va., Fairmont.—J. L. Crouse, Greensboro, N. C., general contractor to erect State Normal School building, let following subcontracts: Granite work, J. F. Noland; ventilating, Dixie Heating & Ventilating Co., both of Greensboro; cut stone, Hoadley Stone Co., Bloomington, Ind.; terra-cotta, South Amboy Terra-Cotta Co., South Amboy, N. J.; structural steel, John Eachley & Co., Pittsburgh, Pa.; ornamental iron, Bristol Iron and Wire Works, Bristol, Va.; metal ceiling, Canton Art Metal Co., Canton, O.; wiring, D. L. Mayes, Fairmont; plans by Paul A. Davis, 1713 Sansom St., Philadelphia, call for brick, stone, steel and terra-cotta structure; 3 stories; 85x250 ft.;

slag roof; indirect-direct steam heat; cost \$123,321. (Previously noted.)

W. Va., Shenandoah Junction.—Board of Education, Charles Town, W. Va., let contract to J. Y. Blackford, Shenandoah Junction, to erect school; 66x72 ft.; 1 story; brick; manufactured stone trimming; slate roof; wood floors; hot-air heat; no lighting plant; J. W. Woltz, Archt., Waynesboro, Pa., may be addressed. (Lately noted.)

W. Va., Wheeling.—St. Joseph's Convent let contract to John L. Giesey Co., 1 1/2th St., Wheeling, to erect convent addition; 1 story; brick and stone; slate roof; wood floors; cost \$7000; S. F. Hebert, Archt., Bessemer Bldg., Pittsburgh, Pa. (Lately noted.)

STORES

Ark., Sherrill.—P. G. Jenkins let contract to Edgar Hogan, Pine Bluff, Ark., to erect 2-story brick business building; cost \$1500.

Fla., Seabreeze.—Mrs. C. W. Jacobs, Orlando, Fla., let contract to A. E. Moore, Seabreeze, to erect 2-story business building.

Ga., Augusta.—Clarence Wigfall let contract to Wm. W. McNatt, Augusta, to erect store and apartment building; brick; plate-glass front; tin roof; cost \$5000; Lewis F. Goodrich, Archt., Augusta.

Ga., Dalton.—Julian Oglesby, Atlanta, let contract to Hamilton & Williams Contracting Co., Dalton, to erect store building on Hamilton St.; 34x100 ft.; red brick; plate glass; composition roof; hard pine floor; electric light; cost \$4000; plans by contractors. (Noted in September.)

Md., Baltimore.—J. Marshall Thomas let contract to John Hiltz & Son, 3 Clay St., Baltimore, to erect store and office building at 518 N. Charles St.; 30x114 ft.; semi-fireproof; slag roof; terrazzo and wood floors; steam heat; gas and electric lights; cost about \$20,000; Theo. Wells Pietsch, Archt., American Bldg., Baltimore. (Lately noted.)

Md., Baltimore.—Jacob I. Hamburger let contract to Singer-Pentz Co., 609 Equitable Bldg., Baltimore, to alter buildings at 57 N. Gay St.; will construct front, make interior changes, etc.; vault lights required; cost about \$4000; Louis Levy, Archt., Real Estate Trust Bldg., Philadelphia. (Noted in July.)

Md., East New Market.—George Woolford, Cambridge, Md., has contract to erect building to contain stores, etc. (See Miscellaneous.)

Mo., Kansas City.—E. P. and J. F. Moriarity let contract to Alken & Thayer to erect store building at Grand Ave. and Gilman Rd.; plans by McKecknie & Traut, Kansas City, call for building 6 stories and basement; 70x117 ft.; fireproof; composition roof; concrete floor construction; electric elevator; cost about \$100,000. (Previously noted.)

N. C., Gastonia.—G. W. Ragan let contract to John A. Gardner, Charlotte, N. C., to remodel building on W. Main Ave., consisting of 2 stories; will rebuild fronts and rear, etc.

N. C., Kinston.—Mrs. Alice Hunter let contract to Blalock Bros., Kinston, to erect building at Queen and Caswell Sts.; 4 stories; brick; lower floor for stores; upper floors for offices; cost \$33,000; construction begins Nov. 1; completion by Feb. 1. (Lately noted.)

N. C., Winston-Salem.—Col. G. W. Hinshaw let contract to Paul Miller, Winston-Salem, to erect store building on W. 4th St. to be leased to Meyers-Westbrook Co.; 70x80 ft.; 2 stories and basement; red pressed brick; Mt. Airy granite trimmings; 16,800 sq. ft. floor space; maple floors; dry sprinkler system operated by pressure of city water; all show windows 7 ft. deep; balcony 70x9 ft.; office extension in rear; 2 stories; 12x25 ft.; 600 sq. ft. floor space; cost \$12,000; W. C. Northrup, Archt., Winston-Salem; construction under supervision of Miller Hinshaw.

S. C., Anderson.—Mrs. L. A. Earle let contract to J. E. Barton, Anderson, to erect store and office building on W. Church St.; 50x80 ft.; ordinary construction; Barrett roof; cost \$7500; Casey & Fant, Archts., Anderson. (Noted in Sept. contract let to J. L. Master.)

S. C., Anderson.—Southside Grocery Co. Incp'd. with \$10,000 capital stock by Chas. C. Prevost, W. P. Sloan and J. W. Dickson; is reported to erect business building; let contract to W. L. Brisse, Anderson.

S. C., Greer.—Marvin R. Reese let contract to J. C. Cunningham, Greer, to erect store building.

Tenn., Nashville.—Bernstein Co. let contracts in detail to remodel 4-story brick store building; ordinary construction; steam heat; electric lighting; Warner elec-

trick elevator; cost \$7500; C. K. Colley, Archt., 23 Life and Casualty Bldg., Nashville. (Lately noted under Bank and Office Buildings.)

Tex., San Antonio.—Dalkowitz Bros. Co. let contract to J. C. Diehmman, San Antonio, to erect store building at W. Commerce and N. Flores St.; 2 stories; foundation to support 4 additional stories; reinforced concrete faced with brick; plate-glass front; marble trimmings; electric fans and elevators and pneumatic carriers; cost \$30,000; Leo M. J. Diehmman, Archt., San Antonio. (Lately noted.)

W. Va., Richwood.—Sagraves & Richardson have plans by and let contract to J. A. Fincher, Richwood, to erect hardware and furniture store; brick; 32x110 ft.; Carey's magnesia roofing; concrete basement and wood floors; steam heat; electric lighting; concrete walks; cost \$12,000; hand power elevator \$175. (Previously noted.)

THEATERS

Ky., Mayfield.—Gardner & Usher let contract to N. B. Wickersham, Mayfield, to erect picture theater; 42x123 ft.; brick, concrete, tile, etc.; metal roof; tile, concrete and wood floors; cost \$10,000; steam heat \$1000; electric lighting \$300; Ellis X. Wickersham, Archt., Mayfield. (Noted in Sept.)

Md., Baltimore.—Alladin Moving Picture Parlor let contract to Turner Bros., 706 Union Trust Bldg., Baltimore, to erect addition to and alter moving-picture theater at 530 E. Baltimore St.; 1 story; 49x40 ft.

N. C., Chapel Hill.—Bruce Strowd let contract to Orange Lumber Co., Chapel Hill, to erect moving-picture theater and garage; 50x100 ft.; 2 stories; tin roof; cement and wood floors; electric lights; cost \$7000. Address contractors. (Lately noted.)

Tenn., Nashville.—Sixth Ave. Property Co. let contract to Foster & Creighton, Nashville, to erect theater and office building on 6th Ave.; 50x150 ft.; fireproof; steel and concrete; composition roof; concrete floor; cost \$65,000; steam heat, \$6000; Marr & Holman, Archts., Nashville. (Other contracts noted in September.)

WAREHOUSES

Ala., Huntsville.—Farmers' Warehouse Co. let contract to P. H. Crick, Huntsville, to erect cotton handling and storing building; 140x230 ft.; concrete and frame; Carey roof; E. L. Love, Archt., Huntsville. (Previously noted.)

Ky., Paducah.—Weyman-Burton Co. let contract to W. M. Karnes & Sons, Paducah, to erect tobacco warehouse; 1 story; 163x164 ft.; brick; mill construction; tar and gravel roof; material and supplies bought.

La., New Orleans.—Board of Levee Comms. of Orleans Levee Dist. let contract to erect warehouse and stable. (See City and County.)

N. C., Raleigh.—Texas Company let contract to W. B. Barrow, Raleigh, to erect warehouse on North St.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Automobile Ambulance.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on automobile ambulance, schedule 8846, delivery Charleston, S. C.

Bags (Paper).—See Paper and Paper Bags.—East Coast Brokerage Co.

Basket Machinery.—Harry W. Smith, P. O. Box 143, Pablo Beach, Fla.—Machinery for manufacturing small fancy fiber baskets.

Boilers, etc.—John G. Unkefer & Co., Minerva, O.—Prices on boilers, stack, etc., for postoffice building in Charlotte, N. C.

Belting, etc.—Bollinger Milling & Mfg. Co., Klondike, Tenn.—Belting, pulleys, etc., for 5000-ft. daily capacity sawmill.

Bottling Machinery.—Nelson Davis, 330 Vine St., West End, Birmingham, Ala.—Catalogue and prices on hand-power machinery for manufacturing soft drinks.

Bicycles.—See Motorcycles, etc.—Albert Harman Co.

Boxes (for High Explosives).—See Steel Balls, etc.—Navy Dept.

Bridge Construction.—M. Cornelius, County Clerk, Oklahoma City, Okla.—Bids until Oct. 9 to construct 4 bridges; plans and specifications on file with County Clerk.

Bridge Construction.—Elizabeth City County Clerk, Hampton, Va.—Bids until Oct. 27 to construct 3 concrete bridges; Holson's Bridge over Long Creek, 16 ft. long; Hawkins Bridge over Long Creek, 16 ft. long; bridge over Tidewater Creek, 31 ft. long; plans and specifications on file at Clerk's office, Hampton, and office State Highway Commr., G. P. Coleman, Richmond, Va.

Bridge Construction.—Rose Hill & Ridgely Bridge Co., E. L. Williams, 10 N. Liberty St., Cumberland, Md.—Bids for cable and bridge complete; for cable foot bridge 330 ft. long between Cumberland and Ridgely, W. Va.

Building Materials, etc.—Palmetto Construction Co., Palmetto State Bank Bldg., Palmetto, Fla.—Samples and prices on building materials, etc., of interest to architects and contractors.

Burners (Fuel or Oil).—Nashville Refining Co., 63 S. Hill St., Nashville, Tenn.—Addresses of manufacturers of fuel or oil burners.

Cable (Steel).—Sterling Iron & Steel

Co., 10th and Hamilton Sts., Philadelphia, Pa.—1600 ft. 2½-in. or 2½-in. steel cable.

Cables (Galvanized).—Corderies de la Seine, Le Havre, France.—Steel galvanized cables with resistance of 110 and 100 kilograms for each square kilometer; cables of pure steel of 140, 160, 180 kilograms resistance for each square millimeter; cables to consist of 6 turns of 12 strands, 6 turns of 19 strands, 6 turns of 24 strands, and 6 turns of 37 strands.

Canal Construction.—Henderson County Drainage Comms., Peter Manion, Prest., Henderson, Ky.—Bids until Oct. 9 to complete double dam ditch system north of Green River, including Hulsey Prong, McGovern Prong and Hey Pond Prong; work to be in accordance with judgment, plans and specification in proceeding known as Double Dam Ditch System case now pending in Henderson County Court and with contract heretofore made with H. A. Keith for construction.

Canal Construction.—Henderson County Drainage Comms., Peter Manion, Prest., Henderson, Ky.—Bids until Oct. 27 to construct East Fork of Canoe Drainage Ditch, about 4 mi. southwest of Henderson; length 34,810 ft.; 169,682 cu. yds. excavation; profiles, maps and specifications on file in County Court Clerk's office.

Canal Construction, etc.—Atchafalaya Drainage & Levee Dist., B. L. Campbell, Secy., Silver City, Miss.—Bids until Oct. 22 to construct 15 mi. of canals requiring 407,000 cu. yds. excavation and 90,000 cu. yds. levee work; plans and specifications by M. H. Brewer, Engr., on file at District office.

Canning Machinery.—J. M. Lassiter, P. O. Box 778, St. Petersburg, Fla.—Names and addresses manufacturers of small canning outfits, tin cans, etc.

Cars.—C. L. R. care Manufacturers Record, Baltimore, Md.—24 36-in.-gauge 4-yd. side dump cars.

Cement (Portland).—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Nov. 2 on Portland cement, schedule 8861, various deliveries.

Cotton Cloth.—See Hosiery, Shoe Findings, etc.—Carlos & Moya.

Crusher.—See Road Machinery.—Phelps-Post-Guyon Co.

Crane (Traveling).—See Steel Wind-

Crucibles.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Oct. 26 on 100 600-lb. crucibles, schedule 8859, delivery Washington.

Davits (Boat).—Roanoke Iron Works, Roanoke, Va.—Addresses of manufacturers of boat davits.

Decalcomania Signs.—J. Leo Kolb, 923 New York Ave. N. W., Washington, D. C.—Names and addresses manufacturers of decalcomania window signs.

Dovetail Machine.—H. M. Wade Mfg. Co., Charlotte, N. C.—Second-hand or good condition rebuilt dovetailing machine.

Drainage System.—Drainage Comms. of Jackson County Drainage Dist. No. 8, A. E. Landin, Chmn., Edna, Tex.—Bids until Oct. 26 to construct canals and levees, straighten and clean watercourses, etc.; work consists principally of about 75 mi. of ditches, yardage about 317,000; acreage of district 23,762.8 acres; information obtainable from R. J. Bryan, Dist. Engr., Ganado, Tex.; from J. W. Bagby, County Judge, Edna, or from I. E. Beall, Secy., Ganado, Tex.; Engr.'s complete reports on file with County Clerk.

Drill.—Mexico Brick & Fire Clay Co., Mexico, Mo.—Portable hand or steam-power core drill; new or second-hand; for prospecting clay; depth not more than 100 ft. and will average 60 ft.

Dyes, etc.—Luis E. Feli y Cla, agents and commission merchants, Calle de Blanco No. 973, Valparaiso, Chile.—Interested in blue coloring matter (azul), such as used in sugar refineries; coloring for macaroni, vermicelli and similar products; naphtol; aniline dyes for coloring clothing, etc. Give prices, c. i. f. paid Valparaiso; would like samples.

Dumbwaiter.—John G. Unkefer & Co., Minerva, O.—Prices on dumbwaiter for postoffice building in Charlotte, N. C.

Electric Work.—See Plumbing.—J. G. Ringer.

Electric Motors.—See Machinery.—H. Benjamin.

Electrical Equipment.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Nov. 2 on telegraphs, mechanical engine, transmitters, indicators, etc., schedule 8841, delivery Mare Island, Cal.

Electrical Equipment.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Nov. 9 on 25 transmitting and receiving portable radio sets, schedule 8876, delivery Washington.

Electrical Machinery.—See Hoisting Engines.—Sterling Iron & Steel Co.

Electrical Transformers.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Nov. 2 on three 75 K. W. oil-cooled transformers, schedule 8877, delivery Washington.

Engine and Boiler.—Gourley Bros., Rogersville, Tenn.—Second-hand 4 or 6 H. P. engine and boiler.

Engine (Steam).—See Pumping and Loading (Sand) Machinery.—R. L. Martin.

Engines.—See Machinery.—H. Benjamin.

Engines.—See Electrical Equipment.—Navy Dept.

Fiber Machinery.—See Basket Machinery.—Harry W. Smith.

Fire-escapes.—School Board, J. R. Trueheart, Clerk, Amelia, Va.—Fire-escapes for high-school building.

Firearms.—See Motorcycles, etc.—Albert Harman Co.

Flour Mill.—Buffalo Packing Co., G. W. Miller, Prest., Warrensville, N. C.—Flour-mill machinery; has boiler, engine and pumps.

Forgings.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on 228,125 lbs. shrapnel case steel forgings, schedule 8828, delivery Washington.

Glass (Bottle) Machinery.—Checotah Glass Mfg. Co., John F. Weaver, Prest., Checotah, Okla.—Receiving bids on equipment for factory to manufacture principally milk bottles.

Hardware.—See Motorcycles, etc.—Albert Harman Co.

Hardware.—W. E. Caraway, Joplin, Mo. Prices on building hardware for 10 one-story cottages.

Heaters (Steam).—Palmetto Construction Co., Palmetto National Bank Bldg., Palmetto, Fla.—Addresses of manufacturers of patented steam heaters to install in fireplaces.

Heating Plant.—Board of Education, Samuel D. Jones, business director, Louis-

ville, Ky.—Bids until Oct. 8 for heating and ventilating plant at New Central Colored High School; plans and specifications at office J. Earl Henry, Archt.-Engr.

Heating and Lighting Plants Equipment.—Economy Heating & Lighting Co., L. R. Jarrett, Mgr., 807 Church St., Nashville, Tenn.—Catalogues and prices on tanners and pipefitters' supplies, lamp shades, lamp burners, brass pipe and nuts, tubing brass and copper, gauge cocks, air valves, air pumps, brass cocks and connections, asbestos, needle valves, etc.

Heating.—See Plumbing.—J. G. Ringer.

Hoists.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on spur geared chain hoists, schedule 8835, delivery Philadelphia.

Hoisting Engines.—Sterling Iron & Steel Co., 10th and Hamilton Sts., Philadelphia, Pa.—Three tandem double-drum hoisting engines; drums 48-in. diam by 42-in. face, direct connected to 50 H. P. 3-phase 220-volt 60-cycle alternating-current motors.

Hosiery, Shoe Findings, etc.—Carlos & Moya, Apartado 871, Lima, Peru.—To correspond with manufacturers of cotton stockings, cotton cloths, silk neckties and shoe findings.

Incinerator.—City of Marble Falls, Tex., R. E. Johnson, Mayor.—Probably open bids about Nov. 1 on incinerator of 6 tons-per-week capacity for night soil, dead stock and garbage; plant to be odorless and operating preferably without water supply; fuel to be 4-ft. cord wood or coal.

Iron (Pig No. 4).—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Oct. 26 on 50 tons No. 4 pig iron, schedule 8871, delivery Charleston, S. C.

Jam and Jelly Equipments.—See Vats.—C. E. Chambers.

Lathe (Engine).—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Oct. 26 on 36-in. by 22-ft. engine lathe, schedule 8860, delivery Washington.

Levee Construction.—See Canal Construction, etc.—Atchafalaya Drainage and Levee Dist.

Locomotives.—C. L. R. care Manufacturers Record, Baltimore, Md.—Two 25-ton, saddle-tank, dinky locomotives, 36-in. gauge.

Locomotives.—C. L. R. care Manufacturers Record, Baltimore, Md.—Two 11x16 21-ton saddle-tank locomotives.

Lumber.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Oct. 26 on lumber, schedule 8868, following deliveries: White ash, 16,000 ft. soft Idaho white pine and 16,000 ft. poplar (firsts and seconds), delivery Brooklyn; 30,000 ft. yellow pine (hewn timber), delivery Portsmouth, N. H.; merchantable Southern spruce, delivery Philadelphia.

Manufactures.—Gregoire Coudoupola & Co., importers and exporters, Alexandria, Egypt.—To introduce all kinds of American products, but prefer to handle stockings, underwear, morocco skins, machine oils, culinary oil, cords and rope, carpets, bed covers, machinery, varnish, perfumery, alimentary articles, liquors, all kinds of paper, waxed cloths, linoleum, shoe polish, shoes, etc.

Matching Machine.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on good rebuilt or second-hand end matcher.

Machinery.—H. Benjamin, 435 W. Broadway, New York.—Prices on machinery, including lathes, planers, shapers, milling and screw machines, turret lathes, drill presses, radial drills, power presses, engines, electric motors, etc.

Mechanical Equipments.—See Oils.—Gregoire Coudoupola & Co.

Metal Ceiling, etc.—Frank Holcombe, Oneonta, Ala.—Prices on metal ceiling, roofing materials, plate-glass front and mill work for \$3000 store and office building.

Millwork.—See Metal Ceiling.—Frank Holcombe.

Millwork.—W. E. Caraway, Joplin, Mo. Prices on millwork for 10 one-story cottages.

Motorcycles, etc.—Albert Harman Co., manufacturer of cycle and motor materials, hardware sundries, etc., 26 Hamilton Rd., Highbury, London, England.—Agencies for American manufacturers of complete cycles, cycle bells, cycle lamps, other cycle parts and accessories; motor lamps, motor parts (no motor cars); further tools for cycle and motor use, such as wrenches, pliers, etc.; hardware (domestic only); small arms for sporting use; sporting goods.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Motor Wagon.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Nov. 2 on motor delivery wagon, schedule 8880, delivery Pensacola, Fla.

Nail (Horseshoe) Machinery.—G. J. Tsantos, 37 Rue de Hermes, Athens, Greece.—Interested in machinery to manufacture horseshoe nails in extra soft steel ("Swedish steel"); machine to be modern, of fine mechanism, but of moderate capacity, size and price.

Oil.—See Manufacturers.—Gregoire Coudoula & Co.

Oil (Fuel).—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C. Bids until Nov. 4 to furnish fuel oil, annual estimate for period from Jan. 1, 1916, to Dec. 31, 1916; blanks and general information relating to this circular (No. 977) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

Mining (Phosphate) Machinery.—S. M. Ward, 2101 W. Church St., Nashville, Tenn. (for Bone Phosphate Co., Centerville, Tenn.).—Prices on equipment for plant of 200 tons daily capacity.

Moulder.—H. M. Wade Mfg. Co., Charlotte, N. C.—Second-hand, slightly used or rebuilt 9-in. outside moulder.

Painting Materials.—Dept. of Justice, Supt. of Prisons, Washington, D. C.—Bids until Oct. 19 to furnish (at U. S. Penitentiary, Leavenworth, Kan.) painting materials for interior surface of east main cell wing; specifications on application.

Paper and Paper Bags.—East Coast Brokerage Co., Lamar S. Wolff, Mgr., Miami, Fla.—Addresses of mills manufacturing paper bags and all kinds roll paper for commercial use.

Paving Blocks.—Bond Trustees, Jacksonville, Fla.—Bids until Oct. 9 to furnish 1,000,000 vitrified paving blocks, 3½x8x½ in.; for further information address Chmn. of Board, of J. B. McCrary Co., Engrs., Atlanta, Ga.

Paving.—Robt. Gerlach, City Secy., Denison, Tex.—Bids until Oct. 19 to construct about 13,000 sq. yds. paving; 5-in. concrete base; 2-in. asphaltic wearing surface; grading, curb and gutter; specifications and other information obtainable from A. B. Clenny, City Engr.

Paving.—City of Fort Worth, Tex.—Bids until Oct. 12 for constructing poured asphalt macadam pavement on Landrum St. from 8th Ave. to Rosedale St., and Rosedale St. to Forest Blvd.; 12,300 sq. yds.; specifications on file with F. J. Von Zuben, City Engr.

Paving.—Baltimore (Md.) Board of Awards, City Hall.—Bids until Oct. 13 to grade, curb and pave with sheet asphalt, vitrified block paving and granite block repaving, all on concrete base, included in 2 contracts: No. 122, sections of Wine alley, Balderston St., Mercer St., Water St., etc., 2200 sq. yds. sheet asphalt, 350 sq. yds. vitrified block; No. 123, sections of State St., Breidenbaugh alley, Trenton St., etc., 2440 sq. yds. vitrified block and 540 sq. yds. granite block repaving; specifications and proposal sheets obtainable from Paving Com., R. Keith Compton, Chmn. and Consult. Engr.

Paving.—City Council, Sarasota, Fla.—Bids until Oct. 9 to construct 700 sq. yds. asphaltic concrete pavement on concrete base and 800 ft. combination curb and gutter on Curran St. from Palm to Pineapple Ave.; width paving, 16 ft.; plans and specifications on file with Fitch P. Wright, Commr. Public Works.

Pipe (Steam) Covering.—Robt. Fleming, Norton, Va.—Prices on steam-pipe covering.

Pipe Fittings, etc.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on malleable iron pipe fittings, schedule 8835, delivery Charleston, S. C.

Piping.—J. E. Doman Oil Co., 114 Chapel St., Clarksburg, W. Va.—Piping for 4 wells; steel casing in large size (13, 10 and 8-in.), and wrought iron 6 in. and under.

Plate Glass.—See Metal Ceiling.—Frank Holcombe.

Plumbing.—J. G. Ringer, 10 Steiner

Bldg., Birmingham, Ala.—Bids for plumbing, heating and electric work in \$3000 residence.

Plumbing Supplies.—See Heating and Lighting Plants Equipment.—Economy Heating & Lighting Co.

Press (Veneer).—H. M. Wade Mfg. Co., Charlotte, N. C.—Second-hand (slightly used or good condition) steel veneer press; 4 ft. by 10 ft. or 12 ft.

Pulleys.—See Belting, etc.—Boilinger Milling & Mfg. Co.

Pump.—City of Spartanburg, S. C., S. A. Bush, Supt. Water-works.—Bids on pump Oct. 19.

Pump and Tank.—Stanton Foundry & Machine Co., Palatka, Fla.—Single-action self-measuring long-distance pump; 100-gal. tank.

Pumping Outfits (Water and Mixed Acids).—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on outfit for pumping water, schedule 8844, and pumping outfit for mixed acids, schedule 8831, delivery Washington.

Pumping (Air) Engine.—John D. Kelley, City Secy., Galveston, Tex.—Bids until Nov. 4 to furnish and erect complete mechanical equipment of air pumping engine at Alta Loma, Tex., consisting of 2450 cu. ft. air compressor; surface condenser and reinforced concrete foundation and all

mar. Tenn.—Bids until Oct. 29 to construct 70 ml. graded road; also to repair and complete roads already graded; concrete to be used in construction of culverts and smaller bridges where practical; plans, profiles and specifications on file with Chief Engr. for Road Comms., Elizabethton, Tenn.

Road Construction.—Queen Anne's County Comms., Centerville, Md.—Bids until Oct. 5 to construct .44 ml. State-aid highway upon or along Water St. through Centerville, and 1.73 ml. State-aid highway upon or along Mason's Branch Rd. between Jarman's Branch and Mason's Branch; bids on blank forms obtainable from State Roads Com., 601 Garrett Bldg., Baltimore; plans can be seen and forms of specification and contract obtained for \$1; F. E. Schneppe, Roads Engr.

Road Construction.—City of De Land, Fla., J. G. Dreka, Chmn. Street Com.—Bids until Oct. 19 to construct 6 ml. pine straw roads; straw to be spread 10 ft. wide, of durable thickness.

Road Graders.—Comms.' Court, Escambia County, Brewton, Ala.—Data on road graders.

Road Machinery.—Supervising Board, Road Dist. No. 5, Allen Parish, Oakdale, La.—Graders, stump pullers and other road machinery.

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

We issue every Business Day in the Year THE DAILY BULLETIN

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

The Daily Bulletin is an exceptionally desirable advertising medium.

The subscription price is \$25.00 a year. Are you a subscriber to it, or an advertiser in it? If not, you are missing an opportunity for profitable business.

necessary steam pipe connections, pipes, valves and unions; air pipe and connection from compressor to wells; specifications on file with City Secy. and Water-works Dept.; M. E. Shap, Water-works and Sewerage Commr.

Pumping and Loading (Sand) Machinery.—R. L. Martin, Room 9, Merchants' Block, Ocala, Fla.—Following new or second-hand machinery for pumping and loading sand: 8-in. centrifugal sand pump, 200 ft. of 8-in. iron pipe, 50 H. P. steam engine, 75 H. P. steam boiler, 1 to 2-yd. clamshell bucket and steam engine and hoist for handling same.

Radiators.—Board of Awards, Baltimore, Md.—Bids until Oct. 13 to install additional radiation at Bayview Asylum; plans and specifications at office Building Inspector, City Hall.

Rails.—Boilinger Milling & Mfg. Co., Klondike, Tenn.—One mile 16-lb. T rails; second-hand; delivered prices.

Rails.—C. L. R., care Manufacturers Record, Baltimore, Md.—100 tons 55 to 60-lb. relaying rails.

Road Construction.—Blair Hughes, Supvr. of Roads, Camden, Ala.—Bids until Nov. 1 to construct road of clay and sand or clay and gravel from limit of first 5 ml. of Camden, Oak Hill and Pineapple public road to Oak Hill, about 19 ml.; profiles and specifications on file in Probate office of Wilcox county; J. N. Stanford, Chmn. County Comms.

Road Construction.—Carter County Road Comms., L. D. Gastelger, Secy., Brac-

Road Machinery.—Phelps-Post-Guyon Co., Lexington, Ky.—20 H. P. traction engine; 10-ton road roller; 170 to 200-ton capacity rock crusher; sprinkler.

Roofing.—See Metal Ceiling.—Frank Holcombe.

Sand-handling Machinery.—See Pumping and Loading (Sand) Machinery.—R. L. Martin.

Sawmill.—Gourley Bros., Rogersville, Tenn.—Second-hand wood saw, complete with 4 or 6 H. P. engine and boiler, etc.

Sawmill.—Boilinger Milling & Mfg. Co., Klondike, Tenn.—Sawmill with daily capacity 5000 ft. lumber.

Sawmill.—Boone Fork Lumber Co., W. S. Whiting, Prest., Elizabethton, Tenn.—Considering purchase of second-hand lumber mill; daily capacity 40,000 ft. hardwood.

Scales (Railroad Track).—A. P. O'Brien, 2310 E. Broad St., Richmond, Va.—Second-hand railroad track scales, 100 tons capacity, single or double track, steel or wood construction.

Sewer Construction.—City of Durham, N. C., Geo. W. Woodward, Clerk.—Bids until Oct. 18 on sanitary sewer; about 2760 ft. 8-in. and 270 ft. 6-in. sewer, 16 manholes, 2 flush tanks; plans and specifications on file office of City Engr.; H. W. Kueffner, Engr.

Sewer Construction.—Baltimore (Md.) Board of Awards, City Hall.—Bids until Oct. 13 to construct Dist. 34-B trunk sewer, contract No. 164; specifications and plans obtainable from Secy. Sewerage Com., 904 American Bldg.; 2700 lin. ft. 8 to 18-in.

sewer and 100 lin. ft. house connections; Harry W. Rodgers, Secy. Sewerage Com.

Sewer Construction.—E. D. Bass, Commissioner Dept. Streets and Sewers, Chattanooga, Tenn.—Bids until Oct. 12 to construct Broad St. sewer extension south from Main St. through W. & A. R. R. grounds, including lateral sewers; blank proposal forms, specifications, etc., furnished for \$5 by Clerk Dept. Streets and Sewers.

Sewer Construction Materials.—J. H. Lyons, Mayor, San Benito, Tex.—Prices on sand, gravel, filtering material, vitrified pipe, reinforcing bars, piling, siphons, etc.

Shoe Nails and Pegs.—Panos C. Pappageorgiou, 77 Kolokotroni St., Piræus, Greece.—Nails and pegs for shoes; delivered in packages of 5 kilos each, of different forms, sizes and lengths; has contracts to ship \$40,000 worth, if shipped immediately.

Shoe Findings.—See Hosiery, Shoe Findings, etc.

Shovel (Steam).—The Harvey Co., 111 South St., Baltimore, Md.—No. 0 They shovel; in good condition.

Silk Neckties.—See Hosiery, Shoe Findings, etc.—Carlos & Moya.

Skylights (Ventilating).—Dept. of Interior, Bo Sweeney, Asst. Secy., Washington, D. C.—Bids until Oct. 21 to furnish and install ventilating skylights on Patent Office Bldg., Washington; plans and specifications obtainable from Chief Clerk of Dept.

Sporting Goods.—See Motorcycles, etc. Albert Harman Co.

Sprinkler.—See Road Machinery.—Phelps-Post-Guyon Co.

Stairs (Iron).—The State Co., North Wilkesboro, N. C.—Outside iron stairways for office building.

Steel Balls, etc.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on 116,700 lbs. steel balls and miscellaneous copper shell bands, schedule 8828, and 6000 boxes for high explosives, schedule 8848, delivery Washington.

Steel Windows, etc.—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until Oct. 27 to furnish steel windows, frame and sash, traveling crane, copper tubing, flexible copper or brass conduit, galvanized pipe, pipe fittings, valves, cocks, vitrified pipe, drain tile, shovels, manganese dioxide, gasoline, etc.; blanks and general information relating to this circular (No. 978) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

Stump Pullers.—See Road Machinery.—Supervising Board, Road Dist. No. 5.

Sulphuric Acid.—Luis E. Felu y Cia, agents and commission merchants, Calle de Blanco No. 973, Valparaiso, Chile.—Interested in sulphuric acid; to stand test of 66 degrees. Give prices, c. i. f. paid Valparaiso.

Tank.—Stanton Foundry & Machine Co., Palatka, Fla.—100-gal. tank. (See Pump and Tank.)

Tanks.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on 6 steel rectangular tanks, schedule 8848, delivery Washington.

Tents.—Sanders-Pendleton Co., Dayton, Va.—Second-hand tents suitable for stable tents; also camp tent for 25 or 30 men.

Tobacco Machinery.—A. P. O'Brien, 2310 E. Broad St., Richmond, Va.—Machinery for cutting, drying and grinding tobacco.

Truck.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids until Oct. 19 on storage battery truck, schedule 8845, delivery Norfolk.

Traction Engine.—See Road Machinery.—Phelps-Post-Guyon Co.

Vacuum Cleaner.—John G. Unkefer & Co., Minerva, O.—Prices on vacuum cleaning equipment for postoffice building in Charlotte, N. C.

Vats.—C. E. Chambers, Mgr. Pinellas Abstract Co., St. Petersburg, Fla.—Names and addresses manufacturers of vats or other means of making jellies and jams.

Welding (Electric) Outfit.—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids opened Nov. 2 on elec-

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tric welding outfit, schedule 8878, delivery Washington.
Wire Cable.—See Bridge Construction.—Rose Hill & Ridgely Bridge Co.
Wire Rope.—Bollinger Milling & Mfg. Co., Klondike, Tenn.—Steel cable rope; de-bred prices.
Woodworking Machinery.—See Moulder; Press (Vencer); Dovetail Machine.—H. M. Wade Mfg. Co.

Woodworking Machinery.—Baltimore Lumber Co., 11417 Watson St., Baltimore, Md.—Equipment for manufacturing doors, sash and blinds.
Woodworking Machinery.—National Coop & Box Co., S. A. Cummings, Prest., Lake Charles, La.—Heading or short log saw to cut blocks from 8-in. to 36-in. diam. and 32 to 48 ft. long; nailing machines; riveter; electric drills and boring machines.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Andalusia.—Georgia Central Ry. says it will not build a line from Andalusia to Mounson, Fla. This refers to a late press report.
Ga., Cordele.—The Georgia Southern & Florida Ry. contemplates no new yard work at or near Cordele at present. This denies a recent press report that a new yard would be built.
Ky., Pikeville.—Yellow Poplar Lumber Co. of Coal Grove, O., denies recent press report that it bought timber on Shelby Creek, Ky., and would build narrow-gauge railroad.
Ky., Somerset.—Cincinnati, New Orleans & Texas Pacific Ry., it is reported, has surveyed for double-tracking between Somerset and Flat Rock; also from Tateville to Greenwood. C. Dougherty, Cincinnati, O., is Ch. Engr.
Mo., Graniteville.—Bellevue & Western R. R. Co. of Graniteville is inceptd. with \$40,000 capital to build a line slightly more than 3 mi. long from Graniteville to Bellevue; In-corporators, Wm. R. Othwell and Louis Hud-son of St. Louis, J. H. Long of Bellevue and others.
N. C., Kinston.—The extension of the J. T. Deal R. R. from Beulahville to Chingqua-pa, 9 mi., is to be completed by Jan. 1. A further extension of 10 mi. to Maple Hill is then to be built. J. T. Deal, Kinston, is Prest.
Okla., Beaver.—Beaver Construction Co. has completed grade on extension of Beaver, Meade & Englewood R. R. from Beaver to Forgan, Okla., 7 mi., and will finish line. J. H. Morgan is Prest. and L. A. Walten, Engr. in charge of the construction company.
Okla., Depew.—Sapulpa & Oil Field R. R. Co. of Tulsa, Okla., is chartered with \$300,000 capital stock to build the proposed line from either Depew, Stroud or Bristow to

Drumright, 14 mi., construction to begin immediately. Completion expected in three months. Incorporators: J. S. Frates, Gen. Supt. of the Frisco System at Springfield, Mo.; Frank Brown of Independence, Kan.; C. F. Hopkins of Sapulpa, Okla.; S. W. Barnes of Kansas City, Mo., and W. A. Moore and J. T. Lantry of Tulsa.
Tex., Marlin.—The Marlin Commercial Club is conferring with S. D. Hanna, Chief Engr. of the projected Temple-Marlin Interurban Ry., with reference to plans for its construction.
Tex., Midland.—T. J. O'Donnell of Sweet-water, Tex., is reported as saying that ar-rangements have been perfected for the construction of the Midland & Northwestern R. R. from Midland to Seminole, Tex., about 60 mi., and that the Texas & Pacific Ry. will be interested, providing rails and equip-ment.
Tex., Normangee.—A. R. Crawford of Nor-mangee and others are working on a plan to build an interurban railway from Beaumont to Waco, Tex., about 200 mi., via Nor-mangee, Madisonville, Huntsville and Cold Springs.
Tex., San Antonio.—International & Great Northern Ry. has bought land for building a division terminal outside the city limits, but plans for construction have not yet been made. Thornwell Fay, Houston, Tex., is assistant to the Receivers.
Va., Petersburg.—Norfolk & Western Ry. is reported to have bought 55 acres of land near the "Iron Bridge" and will lay four yard tracks on it immediately. J. E. Crawford, Roanoke, Va., is Ch. Engr.
Va., Roanoke.—Norfolk & Western Ry. will build 11 mi. of double track along New River near Ripplemead, Va., letting 2 mi. to J. J. Boxley & Sons of Roanoke, and doing the rest with company forces. J. E. Crawford, Roanoke, is Chief Engr.

The Chesapeake & Ohio Railway Co.

THIRTY-SEVENTH ANNUAL REPORT

Richmond, Va., September 16, 1915.

To the Stockholders:

The Thirty-seventh Annual Report of the Board of Directors for the fiscal year ended June 30, 1915, is herewith submitted.
The average mileage operated during the year by the Chesapeake & Ohio Lines was 2369.2 miles, an increase over the previous year of 23.4 miles. The mileage at the end of the year was 2371.7 miles, an increase of 4.3 miles over mileage on June 30, 1914. See schedule on page 12 of pamphlet report.

RESULTS FOR THE YEAR.

Operating Revenues were.....	\$39,464,036 89
(Increase \$2,944,173 30, or 5.35%)	
Operating Expenses were.....	27,556,413 59
(Increase \$1,142,514 89, or 4.33%)	
Net Operating Revenue was.....	\$11,907,623 49
(Increase \$861,658 11, or 7.80%)	
Taxes were.....	1,349,496 96
(Increase \$18,562 07, or 1.39%)	
Operating Income, Taxes deducted, was.....	\$10,558,126 53
(Increase \$845,666 04, or 8.69%)	
Miscellaneous Income was.....	1,018,219 08
(Decrease \$1,128,451 18, or 52.52%)	
Rentals and Other Payments were.....	\$11,576,345 61
(Decrease \$138,449 89, or 14.52%)	
Income for the year available for interest was.....	\$10,761,578 48
(Decrease \$144,885 15, or 1.33%)	
Interest (75.25% of amount available) amounted to.....	8,068,041 86
(Increase \$163,284 02, or 2.06%)	
Net Income for the year, equivalent to 4.24% on capital stock outstanding, amounted to.....	\$ 2,693,536 62
(Decrease \$308,279 17, or 10.37%)	
Dividend paid during the year: One dividend of 1%.....	627,816 00
Remainder.....	\$ 2,065,720 62

GENERAL REMARKS.

The equipment inventory as of June 30, 1915, was as follows:

Locomotives owned.....	605	Inc.	19
Locomotives leased.....	212	Dec.	27
Total.....	817	Dec.	8
Passenger train cars owned.....	358	Dec.	8
Passenger train cars leased.....	29	.....	..
Total.....	387	Dec.	8
Freight train and miscellaneous cars owned.....	23,911	Inc.	1,493
Freight train cars leased.....	22,435	Dec.	287
Total.....	46,346	Inc.	1,216

The changes during the year in the accrued depreciation of equipment account were as follows:

Balance to credit of account June 30, 1914.....	\$4,212,541 93
Amount credited during year ended June 30, 1915, by charges to:	
Operating expenses.....	\$786,491 51
Charges to account for:	
Accrued depreciation on equipment retired during year—	
29 locomotives, 8 passenger, 1060 freight and work cars.....	\$92,227 62
Accrued depreciation on cars changed in class during year.....	2,529 15
	94,753 77
	691,737 74
Balance to credit of account June 30, 1915.....	\$4,904,279 67

	1915.	1914.	
Operating Revenues amounted to.....	\$39,464,036 89	\$37,459,863 89	Inc.
Net Operating Revenue.....	\$11,907,623 49	\$11,045,965 38	Inc.
Operating Ratio.....	69.8%	70.5%	Dec.
Tons of Revenue Freight carried one mile.....	8,138,347,516	7,064,650,082	Inc.
Revenue train load, tons.....	906	870	Inc.
Revenue tons per loaded car.....	32.3	30.9	Inc.

New industries were established during the year as follows: 16 manufac-tories of farm implements and farm products, 15 manufactories of lumber prod-ucts, and 30 manufactories of mineral, metal and other products. At the close of the year there were 215 companies organized for producing coal and coke on your Company's lines, with a total of 338 separate mines, of which 319 were in actual operation. Of the 1219 coke ovens 445 were in blast, and of the 10 iron furnaces, having a total daily capacity of 1490 tons, 6 are in operation, with a total daily capacity of 950 tons of pig-iron. 214 new settlers located in your Company's territory during the year, these settlers having purchased 49,011 acres of land from private parties, with an investment of \$1,288,811.
An extension of Pine Creek Branch of Logan & Southern Railway, eight-tenths of a mile, has been completed.
The construction of about thirty miles of the Chesapeake & Ohio Northern Railway has been begun during the year from a point near Edgington, Kentucky, to a point near Waverly, Ohio, on the Norfolk & Western Railway, including a steel bridge across the Ohio River, which is expected to be completed in the fall of 1916. Arrangements have been concluded by the Chesapeake & Ohio Northern Railway Company with the Norfolk & Western Railway Company by which track-age rights are secured over the Norfolk & Western Railway from a connection near Waverly, Ohio, to the line of the Hocking Valley Railway at Valley Crossing near Columbus, Ohio, which provides a through route from your Company's main line to the line of the Hocking Valley Railway.
The revenue coal and coke tonnage was 21,325,742, an increase of 10.8 per cent.; other revenue freight tonnage was 8,722,712, an increase of 3.0 per cent. Total revenue tonnage was 30,048,454 tons, an increase of 8.4 per cent. Freight revenue was \$31,288,536.62, an increase of 8.4 per cent. Freight train mileage was 8,373,417 miles, an increase of 10.6 per cent. Revenue ton miles were 8,138,347,516, an increase of 15.2 per cent. Ton mile revenue was 3.34 mills, a decrease of 6.1 per cent. Revenue per freight train mile was \$3.84, a decrease of 2.0 per cent. Revenue tonnage per train mile was 906 tons, an increase of 4.1 per cent.; including Company's freight, the tonnage per train mile was 982 tons, an increase of 3.8 per cent. Tonnage per locomotive, including Company's freight was 870 tons, an increase of 5.2 per cent. Revenue tonnage per loaded car was 32.3 tons, an increase of 4.5 per cent. Tons of revenue freight carried one mile per mile of road were 3,435,061, an increase of 14.1 per cent.
There were 6,487,503 passengers carried, a decrease of 0.1 per cent. The number carried one mile was 363,579,553, a decrease of 7.6 per cent. Passenger revenue was \$5,696,088.37, a decrease of 6.6 per cent. Revenue per passenger per mile was 2.115 cents, an increase of 1.1 per cent. Number of passengers carried one mile per mile of road was 113,700, a decrease of 8.5 per cent. Passenger train mileage was 5,008,603, a decrease of 4.2 per cent. Passenger revenue per train mile was \$1,137, a decrease of 2.5 per cent.; including mail and express, it was \$1,345, a decrease of 1.7 per cent. Passenger service train revenue per train mile was \$1.375, a decrease of 1.8 per cent.
There were 753.2 tons of new rails (30541 tons 100-lb. and 42991 tons 90-lb.), equal to 49.8 track miles, used in renewal of existing main tracks. 2552 tons of relaying rail were laid in various parts of the line, with an aggregate expenditure of \$29,359. 13,500 tons of 100-lb., 2500 tons of 90-lb. and 500 tons of 125-lb. rail were purchased after July 1, 1915, a portion of which has been laid prior to the date of this report.
The average amount expended for repairs per locomotive operated was \$3013.29; per passenger train car, \$920.35; per freight train car, \$81.88.
Mr. Frank A. Vanderbilt resigned as a director and member of the Executive Com-mittee August 20, 1914, and Mr. Charles E. Graham was elected a director and member of the Executive Committee on that date to succeed Mr. Vanderbilt.
The Board renews its acknowledgment to the officers and employes for faithful and efficient services performed during the year.
By order of the Board of Directors.

GEO. W. STEVENS,
President.

FRANK TRUMBULL,
Chairman.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, build-ing operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or sub-scribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Change in Office Address.

Carriere & Hastings, architects, announce the removal of their office to 52 Vanderbilt Ave., New York City.

Appointed General Manager.

Byron T. Burt, vice-president of the Rut-land Railway, Light & Power Co., Rutland, Vt., has assumed the duties of general man-ager of that company, in addition to the vice-presidency. Mr. Burt was formerly gen-eral manager of the Chattanooga, Tennessee River & Power Co., with headquarters at Chattanooga, Tenn.

To Exhibit Municipal Machines in New York.

The Tiffin Wagon Co., Tiffin, Ohio, has been invited to participate in the exhibition of municipal machines to be held by New York city the week of October 11, and to take part in a parade on October 9. The Tiffin Wagon Co. will show its street-flush-ing machines and sprinklers, both horse-drawn and motor-driven, from the smallest machine to the great six-cylinder motor-driven machine with electric starting and lighting system. These products are all built in the shops of the company, and dur-ing the past year they have designed four models of auto-flushers, together with auto-matic and horse-drawn power motor pres-sure machines.

Adding New Equipment.

The Ashcraft Cotton Mills, Florence, Ala., which runs, in connection with its cotton mill, an oil mill, fertilizer factory and gin, is making extensive preparations for the fall trade. The Atlanta Manufacturing & Supply Co., Atlanta, Ga., has furnished new screw conveyors for handling cotton seed. This equipment when installed will increase the unloading capacity to one wagon per minute. In the cotton mills 160 new auto-matic looms, manufactured by the Draper Company, Hopedale, Mass., are being in-stalled.

Genuine Open-Hearth Iron.

Rust-resisting sheet-metal products made from "Genuine Open-Hearth Iron" manufac-tured and produced solely by the Newport Rolling Mill Co., Newport, Ky., are illus-trated and described in a recent catalogue issued by the company. This product is said to be a pure homogeneous and dense metal, soft, pliable and ductile and meets the de-mand for a rust-resisting sheet metal for roofing, siding, caves trough, conductor pipe, tanks, stacks, metal window frames, metal doors, corrugated culverts, corrugated awn-ings and arches, ridge roll, flashings, and for all exposed sheet-metal work. Many illus-trations are given in the catalogue showing actual installations of sheet-metal work on

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Capital \$2,000,000. Deposits \$21,070,000
Surplus and Profits \$2,175,000.
Accounts of Banks, Bankers, Corporations and Individuals solicited.
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Edwin Warfield, President.

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Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

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which "Genuine Open-Hearth Iron" rust-resisting sheets were specified and used.

Huber Stokers Show Well Under Tests.

The satisfactory results obtained during several recent tests of Huber grates and stokers are said to be very gratifying to the

Time.	Water gauge.	Steam pressure gauge, in pounds.	Water evaporated, in cu. ft.	Temperature of feed water.	Weight of coal fired, pounds.	Weight of ash, pounds.
A. M. 7.30.....	2 1/2	110	46	211	821	15
8.30.....	2 1/2	110	49	211	370	15
9.30.....	2 1/2	110	62	211	254	15
10.30.....	2 1/2	110	39	206	254	15
11.30.....	2 1/2	110	35	202	127	15
P. M. 12.30.....	2 1/2	110	47	204	254	15
1.30.....	2 1/2	110	42	206	100	15
2.30.....	2 1/2	110	37	206	157	15
3.30.....	2 1/2	110	55	205	254	15
4.30.....	2 1/2	110	49	200	127	15

*Dropped clinker grate.

manufacturer, the Huber Grate Bar & Stoking Co., 114 E. Monument street, Baltimore. Among these is a ten-hour test on a 250-horse-power horizontal tubular boiler, the object of which was to find the efficiency of the Huber hand stoker which had been installed.

From the foregoing table it is found that an evaporation of 11.20 pounds of water was secured for every pound of coal fired. While a good grade of coal was used, producing between 14,000 and 14,500 British Thermal Units per pound, it was high in ash and contained only about 1 per cent. moisture. No smoke is claimed to have come from the

boiler during the test or any other time since the stoker was installed. Another successful demonstration is reported by the Western Maryland Railway Co., through H. R. Warnock, superintendent of motive power, Hagerstown, Md. He states that on a 7 1/2 mile run Engine No. 776 showed a saving of about three tons of coal over Engine No. 775.

equipped with W. M. standard grate bars, at which time Engine 776 showed about three bushels of ashes, while Engine 775 showed about eight, indicating that the Huber grate bars are burning the ashes and cinders clean.

Tank Cars for Sale.

Twenty-five 3000-gallon railway tank cars, equipped with automatic couplers, air brakes, etc., are offered for sale by the Walter A. Zelnicker Supply Co. of St. Louis, Mo. In lieu of their regular use as tankers, by the removal of the tanks, the company

[Continued on Page 84.]

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

FINANCIAL CORPORATIONS

Ala., Birmingham.—Home Mortgage Co., capital \$200, is organized with William T. man Hayden, Pres.; Walter C. Hayden, V.-P. and Secy., and C. L. Hayden, Treas.

Ala., Columbiana.—Shelby County State Bank of Columbiana has made application to convert into the First National Bank of Columbiana; capital \$30,000.

Ark., Marshall.—Conversion of the Marshall Bank into the First National Bank is approved; capital \$50,000.

Ark., Monticello.—Monticello Bank & Trust Co. and the Citizens' Bank of Monticello have been merged into the Union Bank & Trust Co.; capital \$150,000; surplus \$75,000.

Fla., Tampa.—Hendry-Knight-Griffin-Bentley Co., to do an insurance business, has filed articles of incorporation; capital \$30,000. A. J. Knight, Pres.; E. L. Griffin, V.-P. and Gen. Mgr.; F. C. Frazee, Secy.; Hugh R. Bentley, Treas.

Md., Baltimore.—Liberty Bank of Baltimore County, Liberty Rd. and Gwynn Oak Ave., has begun business; capital \$25,000; surplus \$5000; Dr. C. A. Smink, Pres.; Horace L. Smith, V.-P.; F. Craig, Cash.

Md., Hyattsville.—Prince George's Bank has begun business; capital \$25,000, with privilege of increasing to \$50,000; Dr. Clarence J. Owens, Pres.; Dr. Guy W. Latimer, 1st V.-P.; D. C. A. Fox, 2d V.-P.; T. M. Jones, Cash.; C. B. Quisenberry, Asst. Cash.; T. Howard Duckett, Counsel.

Okla., Muskogee.—Western Finance Co., chartered; capital \$3000; incorporators, Chas. L. Yancey, Henry M. White and E. Bairdon. S. C. Starr.—Planters Bank of Starr, capital \$10,000, has organized with E. P. Vandiver, Pres.; C. C. Jones, V.-P. and Cash.; M. A. Chapman, Asst. Cashr. Business began Oct. 1.

Tenn., Chattanooga.—The Commercial Bank & Trust Co. and the Bank of Commerce & Savings Co. have consolidated under the name of the Bank of Commerce; capital \$150,000; C. L. Knoedler, Pres.; E. F. Hixon, V.-P.; L. G. Browne, Cash. and Gordon L. Nichols, Asst. Cash.

Tenn., Shelbyville.—Farmers' National Bank chartered; capital \$100,000. P. C. Steele, Pres.; R. W. Clark, Cash. This succeeds the Farmers' Bank of Shelbyville.

Tex., Jolly.—Edrington Co. is chartered, with \$100,000 capital, to do a loan business. Incprts.: Mrs. Virginia C. Edrington, W. R. Edrington, Mrs. O. F. Scott and Edward Burns.

Tex., Post City.—The Citizens' Bank is re-

ported organized by W. O. Stevens. Business is expected to begin about Nov. 1.

Va., Petersburg.—Community Savings & Loan Corp. Incprtd.; capital \$20,000 to \$50,000; H. P. Harrison, Pres.; S. A. Zimmer, Secy.

Va., Reedville.—Commonwealth National Bank has made application to organize; capital \$50,000. Directors: L. Rice, J. E. Marsh, W. J. Courtenay and J. A. Palmer, Jr. This is to succeed the Tidewater Bank.

NEW SECURITIES

Ala., Citronelle.—Election held Oct. 4 to vote on \$15,000 water system and \$10,000 sewerage bonds. Result not stated. Address The Mayor.

Ala., Scottsboro.—\$5000 5 per cent. 30-year \$500 denomination water-works bonds were voted Sept. 14; dated Jan. 1, 1916; maturity, Jan. 1, 1946. Date for opening bids not yet decided. W. C. Maples is Clerk.

Ark., England.—Bids will be received until noon Oct. 14 for \$45,000 6 per cent. 5-year bonds Indian Bayou Drainage Dist. No. 2, Lonoke county. Address Board of Commrs., J. R. England, Chrmn.

Fla., Blountstown.—\$4000 5 per cent. 15-year Calhoun county school bonds have been purchased at par by the State Bank of Education, Tallahassee.

Fla., Bradentown.—Bids will be opened about Nov. 20 to 25 for \$250,000 6 per cent. 5-20-year \$1000 denomination Venice Road and Bridge Dist., Manatee county, bonds. Address J. W. Parder, Sarasota, Fla.

Fla., Crawfordville.—Bids will be received until 11 A. M. Oct. 11 by J. E. Houston, Copchoppy, Fla., for \$15,000 6 per cent. 30-year Wakulla county road bonds; right of redemption at earlier date; denomination \$1000; dated Oct. 11, 1915. Bonds were voted July 13, 1915. J. M. Towles is Clerk Board County Commrs.

Fla., Fellsmere.—Election will probably soon be held to vote on \$50,000 paving bonds. Address Board of Commrs.

Fla., Kissimmee.—\$27,500 6 per cent. paving and funding bonds have been purchased at \$12.50 premium by the Citizens' Bank of Kissimmee.

Fla., Lynn Haven.—\$25,000 of an issue of \$50,000 6 per cent. 30-year dock, street and bridge bonds voted Feb. 1914, have been purchased by Sidney Spitzer & Co., Toledo, O., at par and accrued interest.

Fla., Marianna.—Election to vote on \$17,000 municipal ice-plant bonds will be held Nov. 23. Address The Mayor.

Fla., Okeechobee.—Election is to be called to vote on \$40,000 30-year Sixth Dist. school bonds. Address St. Lucie County School Board.

Fla., Orlando.—Bids will be opened 2 P. M. Nov. 2 for \$75,000 5 per cent. 30-year Orange county road bonds. M. O. Overstreet is Chrmn. Board County Commrs. and B. M. Robinson, Clerk.

Fla., Panama City.—\$20,000 of bonds are voted. Address Dr. A. S. Hill.

Fla., Titusville.—\$35,000 6 per cent. 30-year

bonds for purchase of Titusville Electric Co. defeated.

Ga., Scotland.—Bids are being received by A. H. Duggan, City Clerk, for \$5000 5 per cent. 30-year school district bonds, dated July 15, 1915, and maturing 1925 to 1945.

Ky., Fort Thomas.—\$22,000 city bonds have been purchased at \$997 premium by Seasoned & Mayer, Cincinnati.

Ky., Georgetown.—Election is to be held in Scott county to vote on \$100,000 road-improvement bonds. Address County Commrs.

Ky., Hickman.—Election to vote on \$7500 fire-department bonds postponed from Sept. 20 to Nov. 2. John Pyle is City Clerk.

Ky., Lexington.—\$300,000 5 per cent. Lafayette county road and bridge bonds are voted. Address County Commrs.

La., New Orleans.—Bids will be received until 11 A. M. Oct. 30 by T. Wolfe, Jr., Secy. Board of Liquidation, for \$100,000 5 per cent. park bonds.

Miss., Canton.—Question of issuing \$20,000 street-improvement bonds is reported under consideration. Address The Mayor.

Miss., Lexington.—Durant Dist., Holmes county, has voted road bonds. Address County Commrs.

Miss., Philadelphia.—Bids opened Oct. 7 for \$30,000 6 per cent. 20-year \$100 and \$500 denomination water-works and sewerage bonds; dated Sept. 1, 1915. W. D. Gillis is Mayor and J. M. Irving, Clerk.

Miss., Senatobia.—Question of issuing \$12,000 Tate county school bonds is reported under consideration. Address County Commrs.

Mo., Jefferson City.—Election ordered for Oct. 19 to vote on \$100,000 road, \$35,000 jail and \$25,000 tuberculosis hospital, Cole county, bonds has been called off owing to defect in petition. Another election will probably be called. Address County Commrs.

Mo., Joplin.—Bids will be received until 10 A. M. Oct. 9 by Charles A. Johnson, Commr. of Revenue, for \$13,500 5 per cent. 5-20-year street bonds.

Mo., Lexington.—Oct. 8 election is to be held to vote on \$55,000 Wellington Road Dist., Lafayette county, bonds. Address County Commrs.

N. C., Asheville.—\$200,000 school bonds, and not \$250,000, will be voted on in Nov. J. E. Rankin is Mayor. (Previously mentioned.)

N. C., Durham.—\$500,000 water bonds have been declared valid by the Supreme Court. Address The Mayor. (Previously mentioned.)

N. C., Edenton.—Steps are being taken to call an election to vote on \$25,000 school bonds. Address School Board.

N. C., Selma.—\$10,000 5 per cent. 30-year \$1000 denomination Selma School Dist. school building bonds were purchased Sept. 30 by Sidney Spitzer & Co., Toledo, O., at par; dated Oct. 1, 1915; maturity 1945. T. M. Benoy is Chrmn. Board.

N. C., Zebulon.—Regarding report that question of issuing \$10,000 light and street bonds is being considered, a letter to the Manufacturers Record says that bonds have never been voted on, nor will be any time soon. E. Daniel is Mayor.

N. C., Wilmington.—Election is to be held in New Hanover county, it is reported, to vote on bridge bonds. Address County Commrs.

Okla., Cushing.—\$30,000 7 per cent. 5-20-year \$1000 denomination sewer extension bonds, voted Sept. 22, have been purchased by Geo. W. Piersol, Oklahoma City, Okla.

Okla., Jones City.—The \$10,000 6 per cent. 25-year water and light bonds recently reported sold were purchased by Geo. W. and J. E. Piersol, Oklahoma City.

Okla., Miami.—\$75,000 courthouse and \$85,000 bridge, Ottawa county, bonds are voted. Address County Commrs.

Okla., Muskogee.—\$350,000 municipal gas line and \$25,000 sanitary sewer bonds are voted. Franklin Miller is Mayor.

Okla., Tulsa.—Election will probably be held Nov. 2 to vote on \$600,000 water-works bonds. E. B. Cline is City Auditor.

S. C., Bowman.—Bids will be received until Dec. 1 for \$5000 6 per cent. 20-year refunding bonds Bowman School Dist. No. 65, Orangeburg county; denomination \$500. S. A. Fair is Secy. Further particulars will be found in the advertising columns.

Tenn., Benton.—\$10,000 water-works bonds to be voted on Oct. 20 are 20-year 6 per cents; denomination \$500. Address The Mayor.

Tenn., Chattanooga.—\$100,000 wharf-improvement bonds will probably soon be placed on the market. Jesse M. Littleton is Mayor.

Tenn., North Chattanooga.—\$50,000 5½ per cent. 30-year sewer bonds have been purchased by the Chattanooga Clearing-House Assn. at par.

Tex., Alief.—School Dist. No. 46, which includes Alief, Harris county, has voted \$2000 school bonds. Address County Board of Education at Houston.

Tex., Austin.—Attorney-General has approved the following securities: \$100,000 5 per cent. 10-40-year Palestine school bonds.

Tex., Austin.—Attorney-General has approved the following securities: \$100,000 5 per cent. 10-40-year Palestine school bonds; \$20,000 5 per cent. 5-10-year bonds Gollad County Common School Dist. No. 19; \$2000 5 per cent. 1-40-year Donley County Common School Dist. No. 4; \$900 5 per cent. 5-20-year bonds Wheeler County Common School Dist. No. 2; \$1000 5 per cent. 5-20-year bonds Fannin County Common School No. 25; \$103,000 bonds Brazoria County Road Dist. No. 2; \$100,000 5 per cent. 10-30-year El Paso county poor-house bonds; \$158,000 bonds Nueces County Drainage Dist. No. 2.

Tex., Belton.—\$3000 bonds Consolidated School Dist. No. 115, Bell county, are voted. Address Board of Trustees.

Tex., Belton.—Oct. 14 election is to be held to vote on \$5000 bonds Consolidated School Dist. No. 20. Address Board of Trustees.

Tex., El Paso.—Dispatch to Manufacturers Record says \$500,000 school bonds have been purchased by Sweet, Causey, Foster & Co., Denver, Col., at par, accrued interest and premium \$10. J. F. Dawson is City Clerk.

Tex., Fort Worth.—Bids will be received until Oct. 10 by Dan E. Lydick, Treas., for \$35,000 5 per cent. 20-40-year Diamond Hill Independent School Dist. bonds; dated Sept. 1, 1915; denomination \$1000.

Tex., Houston.—\$30,000 drainage bonds, dated March 10, 1915, are to be purchased at par and accrued interest by the Houston Land Corporation.

Tex., Lancaster.—\$15,000 water and sewer bonds are voted. Address The Mayor.

Tex., Lubbock.—Bids are being received by E. R. Haynes, Judge Lubbock County, for \$100,000 5 per cent. 10-year \$1000 denomination courthouse bonds.

Tex., Lufkin.—\$229,000 Precinct No. 1, Angelina county, road bonds defeated.

Tex., Marshall.—Proposition is before the Commrs.' Court of Harrison county to issue \$200,000 county warrants for road purposes, but it will be some time before any action is taken. \$300,000 road bonds recently reported voted have been sold. Geo. L. Huffman is County Judge.

Tex., Ozona.—\$20,000 Crockett county road bonds were recently purchased by the Ozona National Bank.

Tex., Pasadena.—\$5000 school bonds are voted. Address Board of Education of Harris County at Houston, Tex.

Tex., San Augustine.—\$10,000 6-15-year warrants have been purchased by J. L. Arlitt, Austin, Tex.

Tex., Whitney.—Oct. 19 election is to be held to vote on \$15,000 water-works bonds. Address The Mayor.

Tex., Waxahatchie.—\$121,000 6 per cent. 30-year levee bonds Ellis County Improvement Dist. No. 2 were recently voted; dated Oct. 10, 1915. W. D. Farris is Secy.

Va., Berkeley Springs.—\$15,000 6 per cent. 30-year \$500 denomination paving bonds have been purchased at \$15,234.50 by the Hanchett Bond Co., Chicago, Ill. J. A. Risinger is Mayor.

Va., Charlottesville.—\$75,000 5 per cent. 30-year school bonds have been purchased by Hambleton & Co., Baltimore, at \$76,349.25.

Va., Chase City.—Election will probably soon be called to vote on \$50,000 of bonds for paying off floating debt and for street improvements. Address The Mayor.

Va., Williamsburg.—\$30,000 water-works bonds are voted. Address The Mayor.

W. Va., Hamlin.—Lincoln county road bonds will not be voted upon at this time, according to letter received by Manufacturers Record. Albert F. Black is Clerk.

W. Va., Buckhannon.—Election is to be held Dec. 30 to vote on \$225,000 Upshur county road-improvement bonds. Ernest Phillips is Clerk County Court. (Recent item gave amount as \$250,000.)

W. Va., Mannington.—Election is to be held Oct. 12 to vote on \$300,000 Mannington Dist., Marion county, road bonds. Address E. C. Martin.

W. Va., Pennsboro.—\$28,500 20-year and \$16,500 10-year improvement 6 per cent. bonds have been purchased by Well, Roth & Co., Cincinnati, at 103.02.

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[Continued from Page 80.]

states the bodies can be converted into flat cars and the tanks can be used for storage purposes.

Removal Notice.

Salle & Mewhinney, architects of Birmingham, Ala., have removed their offices to 618-19 Woodward Bldg.

Civil and Landscape Engineers.

J. Temple Waddill and Hugh K. Dabney have opened offices in the Real Estate Exchange Bldg., Richmond, Va., under the firm name of Waddill & Dabney, for the practice of civil and landscape engineering. Mr. Waddill was formerly associated with T. Crawford Redd & Bro., engineers, Richmond, while Mr. Dabney was with Duhring & Howe, landscape architects and engineers of Philadelphia, Pa.

Manufacturing Plant for Sale.

A modern manufacturing plant at New Bedford, Mass., comprising 6½ acres of land, a one-story brick building 400x152 feet, 300 lots of machinery, also power, heat and light equipment, will be offered for sale on the premises, at the head of Nye, Bullard and Quansett streets, October 19, 1915, by J. E. Conant & Co., auctioneers of Lowell, Mass. The plant is said to be adaptable and practically ready for any textile or industrial use whatsoever. Entire property is illustrated and fully described in a catalogue which may be had upon application at the office of the auctioneers, where all inquiries must be made.

Improved Power Drill.

A new 20-inch double back-gear upright power drill has been developed by the Royersford Foundry & Machine Co., Inc., Royersford, Pa. Combining simplicity and speed in operation with strength and rigidity, the machine is claimed to drill with accuracy from the smallest hole up to 1½ inches. Machine-cut gears are used in its construction, and bearings are large and powerful. The drill is made with a square base, has eight speeds with three distinct and complete feeds, power, hand screw and lever feed. Drill spindle is counterbalanced by a weight in the hollow column, and has automatic stop attachment with quick return to the lever, giving rapid movement to the spindle. Quick action screw for raising and lowering the table is also provided.

Enters Consulting Engineering Field

L. K. Robbins, M.E., 227 Westgate Ave., St. Louis, Mo., announces that he has entered the consulting engineering field, and will devote his attention to water-works for factories, institutions, irrigation and towns, specializing in those installations deriving their water supply from drilled or bored wells. Mr. Robbins states that not only will he undertake the design of the plant and supervision of its installation, but will supervise the sinking of the well and furnish a complete detailed record of all its characteristics, and he offers the means of installing plants of this type according to the best engineering practice, and assures an efficient and consistent plant from well to reservoir or tank. Mr. Robbins is well equipped for this character of work, having had 20 years' experience with both well drilling and pumping machinery.

Oscar F. Lackey, Consulting Engineer.

After 19 years' experience in various kinds of engineering practice, seven years of which were with the United States Government in Cuba on streets and sewers and water-supply for the City of Santiago and the last nine as president and chief engineer of the Harbor Board of Baltimore, Oscar F. Lackey has severed his connection with the City of Baltimore and announces that he is now at liberty to receive clients and to render professional service to those desiring it. Temporary offices have been established at 4 West Eager St., Baltimore. Under his direction plans, estimates and specifications covering expenditures of over \$6,000,000, including asphalt and block pavements, sewerage-disposal, water-supply, dams, culverts and bridges were prepared for the Government, and while president and chief engineer of the Harbor Board of Baltimore he planned the harbor improvements for the port, part of which has been completed, at an expenditure of \$8,000,000. He further recommended and drew plans and specifications and estimated for a new Light-street bridge at Baltimore costing \$1,500,000. Mr. Lackey is now president of the Engineers' Club of Baltimore, and was last year president of the American Association of Port Author-

ties, which is composed of all the experts of North and South America. He states that he is prepared, from experience in such matters, to give particular consideration to problems arising in connection with the organization and reorganization of departments, the drafting of laws and the financing of all port matters, the designing and estimating of port improvements, including bulkheads, piers, channel work, warehouses, foundations, bridges, etc., as well as city planning.

TRADE LITERATURE.

Scranton Pumps and Condensers.

Bulletin No. 103, recently issued by the Scranton Pump Co., Scranton, Pa., describes and illustrates Scranton jet condensers and vacuum pumps. The types manufactured include a single cylinder independent air pump and jet condenser, and independent air pump with two jet condenser chambers for handling exhausts from two engines at one time, and a duplex jet condenser; also single cylinder vacuum pumps, and duplex wet vacuum pumps, which are illustrated and described in detail.

Printing Accessories.

The Lakeside Supply Co., 602 Lakeside Bldg., Chicago, has issued a folder describing its line of printing and book-binding accessories. The products listed include "Easy" metal tie-up for securely holding the set-up, "Perfect" half-tone cleaner, "Secure" galley locks for holding linotype slugs in galleys, "Simple" binders for books and catalogues, and the "Justrite" brand of safety benzine cans, oily waste cans and refillable fire extinguishers.

Mechanical Trench Filler.

A folder illustrating and describing the "Double Quick" trench filler and general utility gasoline power unit, for backfilling, light hoisting, hauling overground, loading and unloading, placing pipe in trenches, cleaning sewers, covering telephone and electric light and power conduits, pulling aerial and underground cables, etc., has been issued by the Waterloo Cement Machinery Corporation, Waterloo, Ia., manufacturer of concrete mixers, street pavers, hoists and contractors' equipment. This power trench filler is said to be invaluable to contractors who are seeking a handy, easily-portable power unit that saves time and labor.

Plain and Ornamental Metal Work.

Iron, wire, brass and bronze work in bank buildings, elevator enclosures and cabs, marquis, fencing, fire escapes and builders' iron products are illustrated and described in the attractive catalogue 29-D issued by the J. E. Bolles Iron & Wire Works, 4th and Porter Sts., Detroit, Mich. In the first few pages of the catalogue is found information relating to terms and conditions of sales, with description of the engineering, designing and manufacturing departments, and the remaining pages contain illustrations of a large variety of designs in metal work that have been developed by the company. Included in these illustrations are many views showing the company's products in actual application.

Revolving Steam Shovels.

The American Steel Dredge Co. of Fort Wayne, Ind., has recently issued Bulletin No. 10, describing its type S, full circle swing, "Single-Line" revolving steam shovels. Principles of the single-line hoist are explained and its advantages pointed out in the bulletin with a detailed description of the truck, rotating frame, hoisting, rotating and crowding engines, boiler, boom, dipper and dipper handle and specifications. Adaptability of the single-line shovel is shown by its use in road and street work, cellar excavation, brick and clay products plants, sand and gravel pits, stone quarries, stripping, etc., and sewer and trench excavation. The American Steel Dredge Co. also builds this type of shovel equipped with electric motors, full data on which will be sent upon request.

Hammond Water Meters.

Salient advantages of the Hammond water meter are discussed in Bulletin No. 20, recently issued by the Alberger Pump & Condenser Co., 140 Cedar St., New York, with Southern offices located at St. Louis and Atlanta. Detailed drawings, with full description of its construction and operation, together with illustrations showing the meter operating under actual working conditions, are given in the bulletin. Particular features brought out in the bulletin are its unusual durability due to structural ruggedness and the extreme simplicity and reli-

ability of operating mechanism, the accuracy of which is claimed not to be affected by irregular rates of flow or temperature changes. Hammond meter recording attachments, chart recorder, extension attachments and a Hammond storage type meter with automatic control valve are also illustrated and described in the bulletin.

Fruitland Nursery Catalogue.

P. J. Berckmans Co., Inc., Fruitland Nurseries, Augusta, Ga., has issued a comprehensive catalogue covering a wide range of nursery products. Hints to planters and data on injurious insects and fungus diseases and their treatment, etc., are given in several chapters, and several pages of the catalogue are devoted to fruits, nut-bearing trees, ornamental trees and flowers. The P. J. Berckmans Co. also acts as landscape architect, the company reporting that its men who have charge of this work have had the best of technical training in the schools of landscape architecture in Harvard University and in the State College of Pennsylvania and knowledge gained from the firm's 30 years of experience. A circular is also issued by the company describing the use of Orchard Brand spraying materials, which are manufactured by the Thomsen Chemical Co. of Baltimore and sold by Berckmans Bros., Augusta.

Value of Good Roads.

In order to assist in the creation of good roads sentiment and the bringing about of a better understanding among those who have heretofore opposed road improvements, on account of lack of knowledge of the benefits to be derived therefrom, the Garford Motor Truck Co. of Lima, O., is distributing an illustrated booklet entitled "Roads: Their Influence Upon Economic and Social Conditions," which was prepared by S. M. Williams. The booklet points out the value of good roads to a community and contains valuable suggestions with illustrations showing road conditions before and after their improvement and the resulting benefit to the surrounding country. The Garford Motor Truck Co. states that the booklet is being mailed to all State and county officials in the United States who have anything to do with road construction, and will be sent upon request to anyone interested in road work or those considering the use of motor trucks.

"Hammer" Hammer Drill.

The Chicago Pneumatic Tool Co., 1010 Fisher Bldg., Chicago, Ill., is now distributing its Bulletin No. 216, covering Hammer self-rotating type hammer drills, which are made in three sizes, known as the A-66, B-66 and C-66 drills, suitable for drilling 6, 8 and 12-ft. holes, respectively. Among the important features which the manufacturer has incorporated in this drill is that of the rotation of the steel being entirely independent of the hammer piston, eliminating the use of ratchet or pawl parts. This is said to produce a more rapid drilling machine, as the piston is free to deliver the full force of its blow upon the drill steel without losing a part of its power through the necessity of rotating the steel as well. Another important feature of the Hammer drill is the valve, which consists of a standard commercial hardened steel ball ordinarily used for ball-bearings. It is three-quarters of an inch in diameter and weighs a trifle over an ounce. It is perfect in its action, practically indestructible and ideally simple.

Engineers' and Contractors' Handbook.

In presenting its new catalogue and handbook, Austin Bros., manufacturers, contractors and distributors of steel bridges and structural work, road and street-building machinery and equipment, tanks, sheets and roofing, with offices and works at Dallas, Tex., and Atlanta, Ga., state that the information was compiled and published in book form with the intention of providing buyers, engineers and builders with the greatest amount of reliable information about good roads, good-roads machinery and kindred subjects. Illustrations and descriptions are given of road machinery, including Royal wheeled and drag scrapers, Kansas City High Ball wheeled scraper, New Star, Diamond and Crown pressed-bowl drag scrapers, Royal Buck and Tongue scrapers, railroad and township plows, Royal dump wagons, "Little Giant" reversible road machine, grader and ditcher; Edwards Rural grader and ditcher for rice farmers, canals and levees; Ketchum drag-grader, Servis road drag, Royal road rollers and many forms of bridge work. Besides the general discussion of the company's products, many facts of interest to engineers, contractors

and buyers covering different phases of highway and street improvement and maintenance, together with standard tables and rules relating to the foregoing products and their application, are included in the handbook.

Pressed Steel Reinforced Concrete Construction.

Two recent publications issued by the Trussed Concrete Steel Co., Youngstown, O., are pamphlets entitled "Kahn Mesh" and "Fireproof Floors and Bearing Partitions of Pressed Steel Construction," the latter being in its third edition. Kahn Mesh is an improved form of expanded metal manufactured by a cold-drawn process to secure strength and high elastic limit for reinforcing concrete floors, roofs, roads, pavements, sewers, conduits, tanks, walls, culverts and bridges. The pamphlet contains in addition to a detailed description of Kahn Mesh in reinforcing concrete, sectional drawings illustrating different systems of Kahn Mesh floor construction and tables and information on the correct method of computing Kahn Mesh areas. The pamphlet on Kahn pressed steel building construction contains illustrations of buildings under construction in which the Pressed Steel Company's products are used. Particular attention is given to Kahn pressed steel joists with reinforced concrete beams and to Kahn pressed steel joists supported by masonry walls and structural steel beams. Specifications for Kahn pressed steel construction for floors, hollow and solid partitions, roofs, ceilings, suspended ceilings and "Hy-Rib" with Kahn pressed steel construction are also given in the third edition of the pamphlet on pressed steel construction.

Union Steel Chain.

Union steel rivetless driving chains for driving transmission, Union steel chain belting for handling materials, roller chains, bushing chains; also pressed steel attachments, buckets, sprocket wheels, car hauls, elevating and conveying machinery, etc., are illustrated and described in Catalogue No. 3, issued by the Union Chain & Manufacturing Co., Seville, O. One of the chief features of the Union steel chain is the self-contained link construction, which is said to give reliable service and long life. For convenience, and to minimize the chances of error, the chains are divided into two classes. Those which mesh with standard iron sprockets are listed under the name chain belting. All others are listed as driving chains. Practical suggestions regarding size and design of sprockets, chain speeds, care of chain drives and proper selection of chains are given in the catalogue, together with an illustrated description of each type manufactured by the Union Chain & Manufacturing Co.

Booklets of Valuable Engineering Data.

Six interesting booklets containing engineering information in handy form have been issued by Robert W. Hunt Co., main offices 2300 Insurance Exchange, Chicago, with Southern branch offices located in the Syndicate Trust Bldg., St. Louis; Finance Bldg., Kansas City, and the Busch Bldg., Dallas. This engineering company maintains an international bureau of inspection, tests and consultation, inspection of all rail and structural materials, cement, chemical and physical laboratories operated by competent and experienced engineers, chemists, metallurgists and inspectors. Organization and scope of the company's business are described in one of the booklets under the title of "Engineering Division," with the other five booklets devoted to the following subjects treated separately: "Highway Bridges," containing data on inspection, tests of materials and specifications for highway bridges adopted by the American Society for Testing Materials; "Cement and Concrete," containing standard specifications for Portland cement adopted by the American Society for Testing Materials; "Creosoted Timber," containing inspection data and standard specifications for creosoted wood blocks adopted by the Association for Standardizing Paving Specifications; "Paving Brick," containing inspection, testing and standard specifications for paving brick adopted by the American Society for Testing Materials, and "Standard Specifications for Steel Rails," embracing those adopted by the American Railway Association and the American Society for Testing Materials for carbon-steel rails and the Manufacturers' Standard Specifications for open-hearth and Bessemer steel rails, and also the standard specifications for open-hearth steel rails as adopted by the Colorado Fuel & Iron Co.

The R. J. Reynolds Residence.

With reference to the erection of the residence at Winston-Salem, N. C., for Mr. and Mrs. R. J. Reynolds, an illustrated description of which recently appeared in the MANUFACTURERS RECORD, we are advised that J. W. Little of Lynchburg, Va., is the building superintendent instead of C. N. Langley of Winston-Salem.

Book Reviews.

The Coming Newspaper. Edited by Merle Thorpe, Professor of Journalism in University of Kansas. Henry Holt & Co., New York, publishers. Price \$1.40 net.

The Coming Newspaper, a book from the press of Henry Holt & Co. of New York and edited by Merle Thorpe, Professor of Journalism in the University of Kansas, discusses the latest developments in the methods and ethics of newspaper-making, including news-gathering and handling, advertising, circulation, administration and editorial direction. The material for the book was prepared upon assignment by the editor, who obtained, by means of a questionnaire sent to 1000 men and women in public life, suggestions as to the most vital problems connected with modern journalism. It contains chapters from the pen of a number of men of prominence, embracing, among others, subjects on Tainted Journalism, The Clubber in Journalism, Some Weaknesses of Modern Journalism, A Code of Ethics for Newspaper Men, A Second Candle of Journalism and Circulation Problems. The book takes its title from the first chapter, which was written by Dr. Thorpe, because this chapter seems to cover the scope of the later chapters, and, as its author states, is the result of an intense study of conditions in journalism during the past eight years. Dr. Thorpe takes the position that journalism is infinitely more purposeful today than it ever was before, and that it has assumed greater responsibilities. To use his language, "it has acquiesced in the general feeling that it is at least a quasi-public utility, all of which has, in the very nature of the case, made it an easy target for popular criticism."

In each of the chapters there is much of interest to lay readers, as well as to newspaper workers, and in his foreword Dr. Thorpe expresses the hope that the book as a whole may serve to give lay readers an idea of the problems underlying newspaper-making and at the same time may give to newspaper workers "some inspiration of professional aspect of the newer journalism."

Chronicles of the Cape Fear River. By James Sprunt, Wilmington, N. C. From the press of the Edwards & Broughton Printing Co., Raleigh, N. C. Clothbound. 594 pages.

An invaluable service has been rendered to posterity by the publication of the Cape Fear Chronicles. It embraces historical and other events dealing with the lower Cape Fear River section of North Carolina, especially in the vicinity of Wilmington, which have been compiled and presented by Mr. Sprunt in a vivid and exceedingly interesting manner. Work on the book is said to have been undertaken by the author, notwithstanding that he is a very busy man, being connected with many large and varied enterprises, because he has an abiding affection for the noble stream with which he is so familiar, and is animated by a purpose to preserve in convenient form some account of local incidents that are worthy of being remembered. From the first chapter on exploration and settlement through the subjects

dealing with the Revolution, notable incidents, war between the States, etc., the book abounds in human interest stories that give a realistic review of the times they depict.

Among the many comments that have been made on the Cape Fear Chronicles by college professors, literary and well-known business men, is one by Col. Fred A. Olds of Raleigh, in which he writes concerning the book and its author as follows:

"Happy, indeed, is the State and the section which has such a zealous and gifted chronicler—spared to live long, to observe closely, to remember and to set down in a way which both pleases and instructs at the same time.

"You have written so that all who read understand, and yet you gild what you touch—an art, indeed. Sixty years of activity, of mingling with men and affairs, from the greatest to the smallest, are set forth vividly and with accuracy, so that the book in the years to come will give your section what every other ought to have—a real record. I take it the work will become a classic and a model of a type which enriches the annals of a large and very important section.

"The book is one in which every page counts, and hence it has a compelling interest. The stories of all the periods have zest, and not dryness. Indians and pirates there are; the struggles and the successes of the earlier years; the war time, with the remarkable chapters on blockade running; the reconstruction period and the new life—in so much of which from boyhood you have played a man's part, having never fallen out of the ranks, but happily retaining a clear brain and a sure hand."

Capt. S. A. Ashe, an author of note, to whom the book is dedicated, writes that the Cape Fear Chronicles is not a narrative history, but it presents phases of life on the Cape Fear River from the first exploration to the present time, bringing to view a series of pictures painted with the brush of an artist and abounding in bold and strong strokes of delineation that portray the real life of the inhabitants. Continuing, he says: "The interesting episodes of American history have occurred chiefly in the tidewater districts of the Atlantic slope, and no other river equals the Cape Fear in historic memories. The resistance to the Stamp Act and the Blockade Running, for instance, have no counterpart elsewhere.

"Mr. Sprunt's style is easy and clear, sympathetic, but without affectation. He is at his best in his chapters on Orton, Old School Days, the Cape Fear Pilots, and Blockade Running, which equal in literary flavor and execution the similar work of noted authors. And he has shown fine judgment and taste in selecting the various articles written by others preserved in the volume. One finds matter of entertainment as well as of historical value all through it; for playful humor, romantic incident and thrilling adventure, here and there, enliven its pages.

"As valuable as the book is in other respects, it is of particular value, locally, for its account of the heroes of Wilmington during the war between the States, and in the years to come this admirable record will be prized beyond measure by the people of the Cape Fear.

"I know of no similar work of equal merit relating to any locality, and I hazard nothing in saying that Mr. Sprunt's fine contribution to the historical literature of the Cape Fear will meet with warm appreciation and will be a monument alike to his literary ability and to his patriotic purpose to serve his community."

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

ATTENTION—MINERAL LANDS.—Zinc, lead and coal acreage; location, coal, 60,000, Southern Illinois; zinc and lead, Missouri and Arkansas, 4000 acres; can show you ledges of the real product; located near R. R. Have the above propositions from first party. Takes money to talk; no hot air. Very cheap. S. J. Burkitt, Moweaqua, Ill.

HAVE YOU A VALUABLE PROPERTY FOR SALE? Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

UNDEVELOPED Mineral Lands—Tax titles—in Eastern Oklahoma; 10-acre tracts. \$10 per acre; \$10 cash, balance ten cents a day, payable monthly. J. T. J. Co., Maysville, Ark.

BAUXITE

BAUXITE.—Am in control of considerable high-grade bauxite and invite correspondence from interested parties. Edw. K. Large, 211 Candler Bldg., Atlanta, Ga.

IRON OF PYRITES PROPERTY

NOW is the opportune time to buy iron of pyrites property. Houston & Liggett, Lewisburg, Tenn., have it. Write them for full particulars.

STONE QUARRY

STONE QUARRY FOR SALE.—Party owning valuable stone quarry, located on railroad within ten miles of growing manufacturing city of 90,000 population, will sell same on reasonable terms, or will trade for other property. Quarry now in operation has a fine face of rock assaying from 93 to 98 per cent. pure lime. Ideal proposition for one who understands the business. Address R. T. Fant, Central Bank Building, Memphis, Tennessee.

TALC LAND

FOR SALE.—The finest hard white talc proposition in the South; right on railroad; immense quantity; vein over fifty feet wide; never been worked, but well developed; will bear closest investigation. Box B, Helen, Ga.

CLAY PROPERTY

41 ACRES FINE CLAY, for brick, tile, sewer pipe or vitrified brick; 30 feet deep; on railroad, near deep water navigation and 3 large cities. For sample and price write A. C. Buchanan, Chester, Va.

KAOLIN PROPERTY

LARGE TONNAGE, right on railway in South Georgia, favorably located with regard to all conditions affecting development. Write for complete information to No. 1846, care Manufacturers Record, Balto., Md.

ZINC AND LEAD LANDS

FULLY EQUIPPED AND DEVELOPED ZINC MINES, North Arkansas field, now paying \$4000 month. Face of ore justifies building another mill. Income should double next few months. \$100,000 for fee if sold before another mill added. Fredricks, Springdale, Arkansas.

FOR SALE.—3000 acres proven zinc land in Northwest Arkansas. Millions of tons of zinc ore are being mined in this section, and is selling as high as \$100 per ton. A fortune can be made in a short while on this proposition. Address Clarksville Trading Co., Clarksville, Ark.

MICA DEPOSITS

MICA.—For Mica and Rich Mica deposits address J. L. Mitchell, P. O. Box No. 4, Birmingham, Ala. I have the best quality, and plenty.

ROCK ASPHALT AND COAL LAND

KENTUCKY ROCK ASPHALT FOR SALE.—A tract of land containing valuable deposits of rock asphalt, estimated at more than 9,000,000 tons and 3,000,000 tons of merchantable coal. Water transportation allowing delivery to points on Ohio and Mississippi at minimum cost. Presents rare opportunity for a city or county to secure unexcelled street or road surfacing material at low cost. Address William J. Perry, Staunton, Virginia.

COAL OPERATION

FOR SALE OR LEASE.—Coal mine, store and equipment and miners' houses, by the owner; fine steam and domestic coal; ready for business with immediate possession. C. B. Graham, Charleston, W. Va.

COAL LAND

FOR SALE.—1410 acres coal land; mine with 1100-foot slope, 200 tons daily capacity, being operated daily; good improvements and machinery; as good, if not best, coal in Southwestern field; no labor troubles; are owners and desire to sell direct; no commissions. Inspection any time; a bargain. Elmer J. Lundy, Mena, Arkansas.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines, 16c. per line; 500 lines or more, 15c. per line.

COAL AND TIMBER LANDS

FOR SALE.—Fifty thousand acres coal and timber lands in Kentucky. Coal runs from forty inches to seven feet; timber will average seven thousand feet per acre, most of which is hardwoods. Titles good. Will take large block of stock in new company. For particulars address J. E. Leps, Agent, Keyser, W. Va.

LUMBER

J. D. WYRICK, Lumber Manufacturer, Boarden, Tenn., would like to hear from manufacturers of shingles, lath, flooring, etc., for retail trade.

LUMBER.—We have 100,000 feet 4-4 No. 1 common quartered white oak; 100,000 ft. No. 2 common quartered white oak; 500,000 ft. No. 2 common plain red oak, and 650,000 ft. No. 2 common plain white oak. Lee Wilson & Co., Navarre Bldg., St. Louis, Mo.

TIMBER

REAL TIMBER BARGAIN.—50,000,000 ft.; 70% N. C. pine, poplar and cypress, all original growth; on Southern R. R. in South Carolina. Liberal terms and low price. J. P. Mulherin (owner), Augusta, Ga.

TIMBER LAND

TIMBER AND TIMBER LANDS FOR SALE. 30,000 acres Virginia hardwood, 80% oak. Excellent opportunity for quick buyer. Estimated to contain 300,000,000 ft. Address "Engineer," 704 Union Bldg., Charleston, W. Va.

FOR SALE.—Two Florida yellow pine limits and turpentine producers for quick sale at a bargain. Will stand all investigations. L. N., Box 596, Buffalo, N. Y.

FOR SALE.—Several desirable pieces of timber at bargain prices. If you are in the market and want a money-maker, write George J. Philp, Box 42, Oil City, Pa.

FARM AND TIMBER LANDS

SEVEN MILLION FEET of good saw timber, mostly yellow pine; nice size; long and smooth; together with 1568 acres of good land in Amelia Co., Va. This property has never been on the market before. Price \$33,000. Green & Redd, 9th and Franklin Sts., Richmond, Va.

FOR SALE.—12,000 to 100,000 acres rich Florida land. Several large tracts timber. Farmers' Land Loan & Title Company, Albany, Ga.

TWO MILLION FEET of good saw timber (by estimate), together with 450-acre farm. All for \$7500. 5 miles from station. Green & Redd, 9th and Franklin Sts., Richmond, Va.

WRITE FOR OUR new booklet containing Virginia farms, large and small, and timber investments. Virginian-Seaboard Realty Co., Albion, Va.

STOCK FARM

HISTORIC FARM FOR SALE.—Patrick Henry's Old Virginia Plantation, located in Henry county, containing 385 acres, fronting on railroad and good road, 1 mile from depot; dwelling of 6 rooms with phone and bath, large feed barn, two tenant-houses, fenced and cross-fenced with wire; lays almost level; 200 acres in high state of cultivation, balance in forest and pasture, watered by several streams of pure water. All tools, farm machinery, cattle and crops for \$12,000 cash. This is one of the best farms in Piedmont, Virginia. Southern Real Estate & Investment Co., Martinsville, Va.

FRUIT, FARM AND TRUCK LANDS

THESE COLUMNS are closely read BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

ALABAMA

FOR SALE.—376 acres Cleburne county, 1 1/2 miles of Heflin, on good road; 120 acres in cultivation; 6-room residence; 3 tenant-houses, barns and stables; peaches and apples; \$4500; terms reasonable. L. G. Pettyjohn, 1702 Fifth Ave., Birmingham, Ala.

FOR SALE BY OWNER.—Home plantation of Ex-Governor Robt. M. Patton, containing over 500 acres, adjoining city limits of Florence; 400 acres in cultivation; running water. An ideal stock farm. For further information and prices address John D. Weeden, Florence, Ala.

ARKANSAS

A 5000-ACRE PLANTATION FOR SALE in Northeast Arkansas. Send for description to the owner. F. W. Tucker & Co., Little Rock, Ark.

FLORIDA

FREE.—William L. Larkin's Booklet, "The Truth About Florida," with a six months' subscription to the Indian River Farmer. Fruit growers, truckers, general farmers, folks interested in Florida, send 25 cents to the Indian River Farmer, 66 Seminole Ave., Vero, Fla.

TEN THOUSAND ACRES best farm and fruit land in Polk county, Florida; on railroad within five miles Lakeland. Price, ten dollars per acre. Address G. C. Rogan, 1 and 2 Deen-Bryant Bldg., Lakeland, Fla.

FOR SALE.—Four acres orange grove, also cottage home, and a choice business corner on Main street, Leesburg, Florida. Address E. Yager, Louisville, Kentucky.

FOR SALE.—10-acre orange grove, five acres, bearing, balance will bear next year; place has 3-room building, barn and packing-house, grove one mile north of Narcoossee. Price \$6000. Address J. B. Tindall, Narcoossee, Fla.

FOR SALE.—Ten acres of beautiful land on East St. Andrews Bay, at Bay Harbor; surveyed into four blocks, eight lots to the block; four lots in each block have waterfront; 2 miles west of Panama City; very choice location for either summer or winter resort. Price, fifteen hundred dollars a block, or fifty-five hundred dollars for the whole property. Deepest water on bay and only dock where largest vessels can enter. Tutwiler & Powell, Dothan, Alabama.

FLORIDA.—8000 acres cut-over land lying between Lake Crescent, Lake Louise and Lake George in Putnam and Volusia counties, traversed by main line of A. C. L. Railway; large portion especially adapted to orange and grapefruit culture; balance finest potato and general farming land; lands all around selling \$20 to \$100 per acre. My price, \$10 per acre in a body; terms. Correspondence solicited. Chas. A. Brown, Jr., 30-31 Buckman Building, Jacksonville, Fla.

FLORIDA.—10,000 acres of cut-over lands within 15 miles of Jacksonville, entirely surrounded by established colonies and particularly well adapted for trucking and poultry farms. For sale as a whole at \$12.50 per acre; terms to right parties. I also represent timber tracts in different parts of the State to suit almost any requirement. For particulars write William Nussbaum, Jacksonville, Florida.

WE were the original Northern promoters of Florida land in a wholesale way, and still own and control 400,000 acres. Attractive prices and terms to responsible people; references exchanged. We can help you make money. Write us for our wholesale booklet. Thompson & Jackson, Toulon, Ill.

CHOICE citrus and truck lands for sale in the Manatee River section of Manatee County, Florida; also water fronts. Send for soil survey report and views. Manatee River Land Co., Inc., 101 1/2 Franklin St., Tampa, Fla.

GEORGIA

APPLE ORCHARD FOR SALE.—3000 eight and nine-year-old trees, choice fruit and absolutely the best orchard in the country. Always hits. Only half mile from courthouse and railroad station. \$5500 buys it, one-third cash, balance two, three and four years. F. G. Jones, Cleveland, Ga.

GEORGIA FARMS in Wilkes Co., finest farming section in South. Lands cheap. Write E. J. Wilkinson, Tigrall, Ga.

MARYLAND

SACRIFICE SALE.—One large lot in the town of Laurel, Maryland. Also, acreage near the town. Address West Grove Nurseries, Box 71, Norfolk, Va.

MISSOURI

STOCKMEN.—320 acres, clear ever-running water, furnish 5 milk cows, near Butler, Mo. Price \$8 acre, 1/4 cash, balance to purchaser. Must sell. R. W. Mottas, Missouri Ozark Soil Expert, 705 Olive, St. Louis.

TENNESSEE

EXTRAORDINARY OPPORTUNITY.—20-acre farm, which can be rented for \$200 a year cash rent, and on which there will be 15,000 bushels of corn this year, can be bought for \$45,000, with a payment of only \$7500 cash, balance any time within 10 years. Farm will easily pay for itself. Further information furnished interested parties. The Osborne Land Company, Farm Specialists, Bristol, Tennessee.

ON ACCOUNT OF OTHER BUSINESS I have decided to sell my farm, situated one mile from Centerville, Tenn., on Duck River, level to slightly rolling chocolate loam soil, very productive; wire fenced and cross-fenced; 5-room house, well, gasoline engine and tank; barn worth \$2000; new Saginaw silo, 150 tons, just filled with corn and other stock foods; 10 head mules and horses, 4 head stock cattle, 100 head stock hogs, 9 head registered Angus cattle, tools, etc. Will sell all with farm or farm alone. 123 acres, all in cultivation. Price \$100 per acre. If interested, wire me when you will arrive, for this won't last. A. H. Grigsby, Centerville, Tenn.

TEXAS

FOR SALE.—A farm of 1388 acres, all fenced, 4 wires; 150 acres in cultivation; 1000 acres more can be put in; fronting San Antonio River; river land black mesquite, balance post oak sand, suitable for water-melons, corn and cotton; adjoining farm made 40 per acre in melons; new 5-room house and well; county road and railroad run through lower edge of tract, with switch on land for shipping farm products; 1/4 mile to good school; 5 miles from Floresville, Texas; enough land for several families; a sand company, operating and mining sand in a shallow valley running through land, paying 2 1/2 cts. per ton royalty, which will go to purchaser; timber will pay for land. Price \$22.50 per acre. Rud. Allerkamp, owner, Comfort, Texas.

SPORTSMAN'S and Trucker's Paradise. An island on Gulf coast; land-locked harbor; main channel to Galveston; millions of game and fish; splendid resort; truck grows every day. Cheap. Address owner. H. C. Adler, Victoria, Texas.

VIRGINIA

VIRGINIA ESTATES.—Colonial homes, plantations, farms, suburban homes, Alle-marie pippin orchards, timber lands. Write us for what you want. We have it. R. I. Flanagan & Co., Charlottesville, Va.

ESTABLISHED 1893.—From long experience we are thoroughly familiar with land and values and have some genuine bargains listed. Tell us what you want and let us submit some special offerings. Southern Farm Agency, Lynchburg, Virginia.

FOR SALE.—Fine river plantation, 30 acres, in Mecklenburg Co., Va., on National Automobile Highway south, and 2 miles from good town; good buildings; well watered; and excellent stock farm; fenced and cross-fenced. Price \$15,500. Write today for full particulars. Jeffries, Hester & Co., Chase City, Va.

GRAZING FARM. \$20 PER ACRE.—30 acres, 25 miles from Lynchburg; 1 1/2 miles station; three-fourths cleared; level and gently rolling land; especially adapted to grazing; will graze 50 to 75 head stock; well watered; fenced with wire. Good 5-room cottage dwelling; large horse and cattle barn. Must be sold. Don't miss the bargain. Venable & Ford, Lynchburg, Va.

2158 ACRES in Goochland county, Va., 3 miles west of Richmond, 3 miles from Chesapeake & Ohio Railroad and James River; 650 acres cleared; \$7000 worth of pine saw timber, \$3000 worth of poplar, hickory, oak and small pine; 11-room brick house and large double barn; fine plant as hunting preserve or for farming. Can be bought very low now. Richmond Trust and Savings Company, Real Estate Dept., Richmond, Va.

1339-ACRE STOCK OR GENERAL FARM in Blue Grass section, Piedmont Virginia; large modern home on macadam road, near dairy junction town. Ideal location large dairy plant. Alfalfa thrives. Will sell cheap or take part value mercantile stock or other good property. Jos. M. Samuels, Orange, Va.

TO TRADE for city income property—40-acre farm in Virginia, value \$30,000; at station on Southern (main line) Railroad; in high state of cultivation; fine and valuable orchard; good dwelling of 11 rooms; all necessary outbuildings in good condition; schools, churches, stores and mills nearby. Address P. A. Green & Co., 203 Park Bldg., Richmond, Va.

FINE James River farm, 650 acres, 40 miles west of Richmond; fertile upland and river bottom, in high state of cultivation; large dwelling in good condition; splendid view from house; ample outbuildings; part of "Randolph" estate; will sell with or without equipment and stock; Chesapeake & Ohio Railroad by the farm. Price reasonable. Richmond Trust and Savings Company, Real Estate Department, Richmond, Virginia.

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